Florida WILDLIFE

Operation Dirty Bird
Summer Youth Camps

Fishing · Hunting
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Outdoor Recreation

APRIL 1970

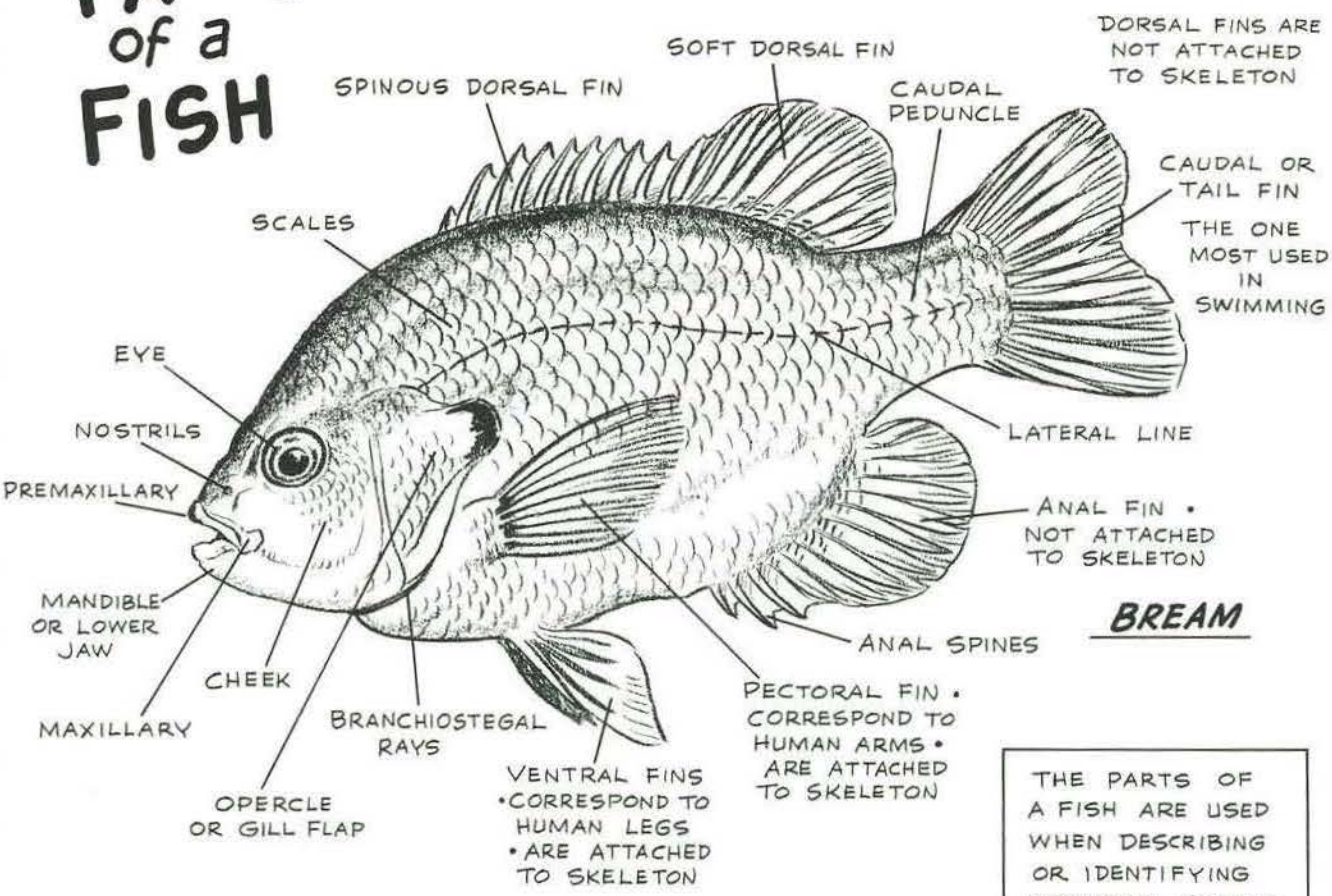
The Florida Magazine for all Sportsmen

25 CENTS

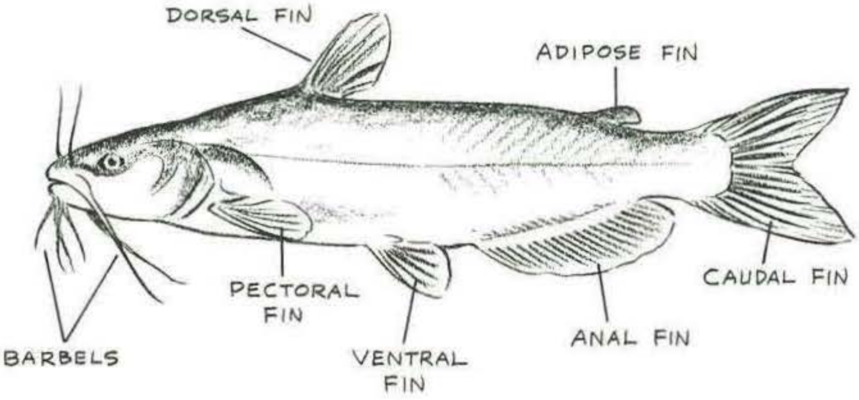
Florida Wildlife Scrapbook

PARTS of a FISH

ARE YOU FAMILIAR WITH THE CORRECT NAMES ?


SOFT DORSAL FIN
DORSAL FINS ARE NOT ATTACHED TO SKELETON
SPINOUS DORSAL FIN
CAUDAL PEDUNCLE
CAUDAL OR TAIL FIN
THE ONE MOST USED IN SWIMMING
SCALES
EYE
NOSTRILS
LATERAL LINE
PREMAXILLARY
ANAL FIN • NOT ATTACHED TO SKELETON
MANDIBLE OR LOWER JAW
ANAL SPINES
CHEEK
PECTORAL FIN • CORRESPOND TO HUMAN ARMS • ARE ATTACHED TO SKELETON
MAXILLARY
BRANCHIOSTEGAL RAYS
VENTRAL FINS • CORRESPOND TO HUMAN LEGS • ARE ATTACHED TO SKELETON
OPERCLE OR GILL FLAP

BREAM



CATFISH

THE PARTS OF A FISH ARE USED WHEN DESCRIBING OR IDENTIFYING INDIVIDUAL SPECIES • NOT ALL FISH HAVE ALL OF THE PARTS SHOWN • MOST DO NOT HAVE BARBELS • SOME HAVE ONLY ONE DORSAL FIN • SOME HAVE NO PECTORAL FINS • THERE ARE MANY VARIATIONS IN SIZE AND SHAPE OF FINS • FINS HELP THE FISH MAINTAIN ITS BALANCE IN THE WATER

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The Cover

The big size bass has long been a special attraction in Florida's fresh waters—many anglers are out to "break the largemouth record" that has been standing since 1932. See page 13.

From A Painting By Wallace Hughes

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Thousands of volunteers, old and young, made a valiant effort to clean and care for oil-soaked birds. Over 11,000 birds were estimated lost; about 3,500 cleaned, of which an unknown number subsequently died. Emergency services and facilities were provided by city of St. Petersburg, The Salvation Army, below, and many other groups, associations and business organizations.

Tampa Bay Oil Spill

Operation Dirty Bird

FRIDAY, THE 13th of February 1970, was an unlucky day for the waterfowl, marine life and people of the Tampa Bay area of Florida. On that morning the Greek tanker Delian Appolon, while proceeding to the Florida Power Corporation's power generating plant at Weedon Island, ran out of the ship channel while in heavy fog. It grounded hard; the hull of the tanker ruptured; its cargo of Bunker C crude oil began spilling into the water.

According to later newspaper accounts, the spill was thought not to be serious at first. By early afternoon, however, the reports confirmed the worst: a major oil slick was spreading from the damaged tanker, which had been refloated by harbor tugs and was moored at the Florida Power Corporation dock.

What followed was an all-out effort by various governmental agencies, conservation groups, community service organizations, and hundreds of volunteers to salvage as many of the thousands of oil-soaked wildfowl as possible. Containing the oil and beginning massive cleanup operations took some time to organize.

On Saturday afternoon, Game and Fresh Water Fish Commission wildlife biologist Steve Fickett met with Department of Natural Resources officials, representatives of the Florida Audubon Society, and others, for a briefing on the situation and to begin organizing a task force operation for the purpose of salvaging wildlife. Other Commission personnel were being alerted to assist with the effort, and an aerial survey was flown to help ascertain

(*Continued on page 6*)

By H. E. WALLACE
Assistant Director
Game & Fresh Water Fish Commission

Photos By Robert Wood

"Operation Dirty Bird" was no place for the timid or the tidy, as these photos show. It was a long, grimy weekend for those helping on the job. First, the ducks' eyes and nostrils were cleaned, then the feathers. Many methods were tried; the best are now being published by the Florida Audubon Society.

Many tons of rags and other cleaning materials were donated by local merchants and individuals. As birds were cleaned, each was banded for future identification. Recoveries of the banded waterfowl will give some indication of survival rate.

(*Continued from page 4*)

the extent of the problem and to photograph the damage.

Shortly thereafter, the *modus operandi* for Florida's first major "operation dirty bird" had been fairly well outlined. Randolph Hodges, executive director of the Department of Natural Resources, had been named by Governor Kirk's office to head the operation. He was assisted by Harmon Shields.

Maj. J. O. Brown, manager of the Commission's South Florida Region, was in charge of GFC units assigned to the task force—about 25 officers, five boats, two airboats, an aircraft, a base radio station, and other miscellaneous ground support.

Estimated expenditures by the Game and Fish Commission alone amounted to approximately $10,000.00.

Others directing portions of the bird salvage operation were Jim Kelly and Harold Sims of the Florida Audubon Society and Dr. George Reid of the biology department of Florida Presbyterian College, St. Petersburg.

Practically the entire faculty and student body of Florida Presbyterian were dismissed from classes Monday, the 16th, to participate in "Clean a Duck Day." The operation was set up on the west bank of Lake Maggiore. Hundreds of other volunteers assisted—of all ages and from all walks of life.

The whole operation was a rather hectic affair. Yet, through the concerted efforts of all an orderly operation was finally established. It involved such things as the erection of power poles and flood lights by Florida Power Corporation, the hookup of a water supply by the fire department, the provision of portable toilets by the city, the furnishing of a mobile telephone unit by General Telephone Company, the provision of food and beverages by the Salvation Army, the Red Cross, and local firms such as McDonald's Hamburgers, and the donation of truckloads of rags, sawdust, lumber, and other items and supplies far too numerous to list.

Initially many volunteers brought salad and cooking oils to use in cleansing birds, but after experimenting with various products a certain mineral oil was tentatively selected as the most satisfactory and was purchased in 55-gallon drum lots.

It was evident that a shelter was needed to house the rescue operation, so one was ordered by the Game and Fish Commission—a huge circus-type tent.

While some of our personnel assisted with picking up and transporting oily birds to the shelter—both dead and alive—others remained at the cleaning operation headquarters issuing instructions on the cleaning and treatment of birds, packaging and distributing wildlife food supplies—including cracked corn and a truckload of gizzard shad—and banding all the birds as they were cleaned. Band returns will help biologists determine the rate of survival of oil-soaked, "laundered" birds.

It is estimated that approximately 3,500 wildfowl were cleaned and subsequently harbored in private homes and dormitory rooms for treatment and care. Efforts are being made by Dr. Reid to learn how many birds were so cared for, how they were treated, and how many survived. It is acknowledged, however, that the sum of wildlife mortality that occurred as a result of the oil spill will never be accurately determined.

In the aftermath of the spill, state health officers and county pollution control authorities closed portions of Tampa Bay to the taking of shellfish—mainly oysters.

Marine biologists under Dr. Robert Ingle of the Department of Natural Resources undertook a study of the damage and potential damage to salt water fishes and shellfish.

Much was learned in the Tampa Bay spill about the proper, and improper, treatment of waterfowl and other wild birds affected by oil. One outgrowth of the unfortunate experience is that the Florida Audubon Society, Maitland, is preparing a manual detailing the best methods of coping with the problem, which will undoubtely be repeated in Florida and elsewhere as time goes by. The Game and Fresh Water Fish Commission, too, is planning to tabulate all its information on the salvage operation. Presumably, other agencies and groups will do likewise. Dissemination of such information to other states' game and fish agencies, conservation groups, and to the general public, will help reduce wildlife losses in future oil spill mishaps.

It is our hope that others may benefit from our experience by being better prepared to deal with similar catastrophes. ●

Cleaning and banding were not the end of the line for rescued birds. Detailed instructions and food packages were issued to those taking the flightless birds home for "postoperative" care. When again able to fly, some refused to leave their new friends, hanging around for a free meal. The solution: do not feed. Without handouts they eventually rejoined wild flocks.

Meet Your Commission

C. A. Peacock, Jr.
Commissioner
Miami

THE APPOINTMENT of Miami businessman C. A. "Pete" Peacock, Jr., 33, to a 5-year term as a member of the Game and Fresh Water Fish Commission was announced in February by Gov. Claude R. Kirk, Jr. The new appointee replaces W. T. McBroom, also of Miami, whose second term on the Commission expired last December.

Commissioner Peacock is a native Floridian and a lifelong devotee of a wide range of outdoor sports, including hunting, fishing and outboard motorboat racing. (He was born in Miami—as were both his parents.) He is a swamp buggy and airboat enthusiast and currently owns two 'buggies he built to traverse the Everglades, where he has hunted and fished for the past 20 years—mostly in the Big Cypress area.

The Commissioner is a 1954 graduate of Miami Senior High School. He attended the University of Florida, Gainesville, before entering military service in 1958 for 6 months active duty as an Army enlisted man. He was among the first 100 individual reservists recalled to active duty during the 1962 Berlin crisis, but saw no overseas service.

Peacock is now sales manager for two firms: Seminole Rock Products, Inc., and Miami Crushed Rock, Inc. He is also part owner of Pan American Construction Company. All are Miami firms.

Although a very busy family- and businessman, he still finds time for leadership and service in several areas of civic and professional life, in addition to public service.

He is president of the Engineering Contractors Association of South Florida and has served on its board of directors for two years. He is a member of the Florida Road Builders Association; is on the board of directors of the Florida Concrete Products Association; is past president of the South Miami Kiwanis Club; and is past vice president of Sigma Chi Alumni Association.

Commissioner Peacock was formerly a member of the District 9 Welfare Board, to which he was appointed by Gov. Haydon Burns in 1966. He resigned that post to accept an appointment by Gov. Kirk to the Tennessee-Tombigbee Waterway Authority in 1968, a commission he resigned to accept appointment to the Game and Fish Commission. He formerly served in an advisory capacity to the Florida Legislative Council's Roads and Highways Committee and its Construction Industry Study Committee. Additionally, Peacock represented Florida for the past two years at the National Rivers and Harbors Congress in Washington, D.C.

He is married to the former Llwana Flora, a native of Pennsylvania. They have three children: Luther, 9; Bill, 7; and Sherri, 4. They live at 434 Palermo Avenue, Coral Gables.

Members of the Peacock family were pioneers of the Miami area. They owned and operated the first hotel in Coconut Grove, The Peacock Hotel.

The Commissioner's mother, the former Mary Elizabeth Bunnell, is a descendant of the founders of the Flagler County town of that name.

It was his grandfather, L. E. Bunnell, who introduced him to hunting in the Everglades—at the ripe age of eight! (They first hunted in what is now part of Everglades National Park, which was established in 1947.)

As he recalls, he bagged his first turkey at about age 11; his first deer at 15. He has since grown to love turkey, deer and dove hunting—in that order—but enjoys all forms of the sport. He is a bowhunting enthusiast—with one deer kill to his credit so far. And, he has participated in the managed bear hunts the Commission conducts in the Liberty County portion of the Apalachicola National Forest.

As for fishing, he says he enjoys both salt and fresh water angling with light tackle, including fly fishing.

Commenting on the challenges of his appointment to the Game and Fish Commission, and on conservation in general, Commissioner Peacock says, "Having seen the great changes in the Everglades since my boyhood—and in all of Florida—I am greatly interested in preserving what is left for my own children—and for future generations.

"I am convinced there can be a meeting ground between business and conservationist interests in the future. We cannot have all of one and none of the other. I believe we can achieve mutual understanding in problem areas through careful and intelligent planning of Florida's future with regard to all her natural resources."

With reference to the involvement of young people in today's great environmental issues, he says, "I think our young citizens can achieve a great deal by calling attention to the urgency of pollution and other major problems facing our state and nation, but I feel they must be reasonable in pressing for change; that they must abide by the law and commonly accepted rules of courtesy." ●

Boats and Boxes

it seems as though tackle box manufacturers have been neglecting average fly fishermen—aiming primarily at smaller size trout angling gear

By CHARLES WATERMAN

THE FIRST BIG BASS I ever caught was landed some 40 years ago on a plastic (nope, it isn't all new) lure called the Heddon Gamefisher. The Gamefisher I used was pretty big and jointed in two places; in other words it was made up of three sections, skillfully mounted so that they gave a mighty unusual wiggle in the water. I just happen to have that old plug and I'll stick in a picture of it along with something newer.

The old Heddon floated at rest and gouged down about two feet when you retrieved with a quad casting reel. It was painted in rainbow colors that gave an eerie appearance from the fisherman's viewpoint. As it came through the water you couldn't see the joints plainly; it looked as if the thing was all one flexible piece and the wiggle was something to behold. As I recall, it pulled rather hard through the water. It was a pretty good plug.

I have a new Rebel that's jointed once near the tail. That will undoubtedly add to the fishy action of the thing. The more recently designed jointed plugs are somewhat simpler than the old Gamefisher, with a connection made of ordinary interlocked rings rather than the old Heddon hookup.

Several times I have felt that joints gave added attraction to a plug and I particularly favored the jointed Creek Club Pikie after it made me look good on a Missouri float trip. I guess it adds up that the extra bit of snaky undulation doesn't hurt anything. If it helps, so much the better. There are some little design gimmicks—for one thing it's easier for a jointed plug to get its hook tangled and you must build the thing so they don't get together. Then, the hookup between the sections must be strong enough not to give way after a long period of wiggling and wobbling. The plug should be balanced so it won't constantly hook the line in casting.

Some jointed plugs don't work too well on the surface, stiffness being needed to give the seductive tipping motion that's attractive to bass. Others look quite good with top-water twitching.

MONTHS AGO I had some things to say about binoculars for use by fishermen. Since then I have done a lot of testing on some new glasses by Bushnell. These are pocket binoculars, the 7 X 26 Custom Compacts, listing at $69.50.

Miniature binoculars aren't even considered by many buyers because there have been very cheap and very poor "little" glasses on the market since I was a kid. These little ones are plagued by the term, "opera glass," in many cases. Since the very best glasses were big and heavy for a long while, a lot of outdoorsmen feel that if the things don't bow your neck and buckle your knees they're no good.

Ever since World War II there have been ultralight glasses with fine optics—some of the more

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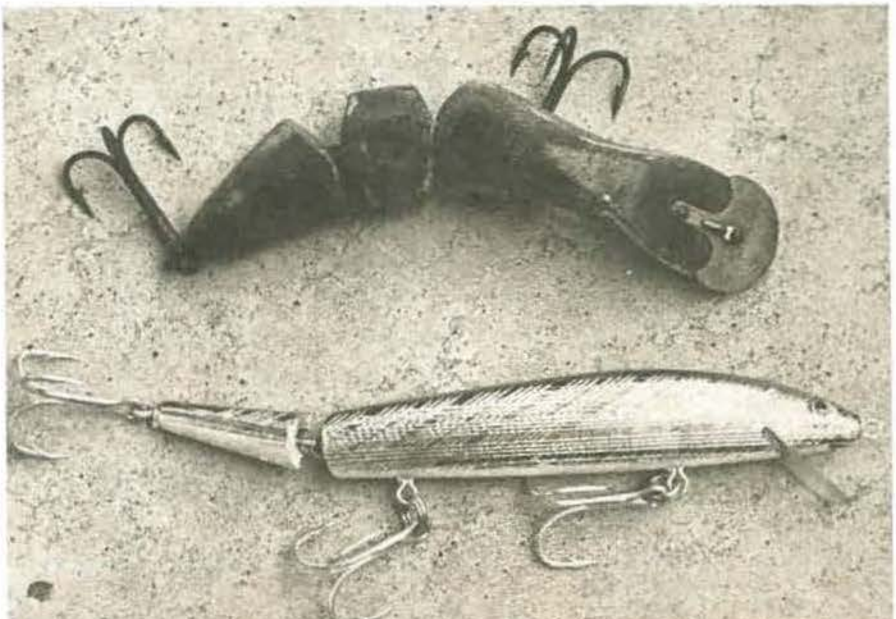


The old and new in jointed plugs. The battered Heddon Gamefisher is almost 40 years old. The Rebel, a more current "winner," has just been introduced—also successful in one-piece form.

(*Continued from preceding page*)

expensive ones didn't make it because there wasn't much prestige in glasses you could hide in your hand. But the size of the glasses has little to do with the actual quality of optics. The aforementioned Bushnells are sharp enough and clear enough and with so few aberrations that I am unable to distinguish between their images and those seen through glasses that cost $300.

They are small enough to slip into your pocket and come in a soft zipper case rather than in a conventionally stiff shoulder strap job. Small glasses are not night glasses, the added light-gathering qualities requiring bigger glass surfaces. I am not going into binocular construction because I don't understand it and you probably don't care.

So are the little glasses perfect?

Well, not quite. There are a few things you must give up for extremely small size and weight. Although the little Bushnells are equipped with retractable eyecups to make things easier for eyeglass wearers, they are not nearly as readily adjusted in width as are larger glasses. Unless you set them at the proper angle and work the hinged center adjustment just right, you'll find only one eye is seeing through.

This is much less important for folks who don't wear glasses. In practical use the drawback is insignificant unless you want to look through the glasses in a hurry. They are not quite as quick to use as standard-sized ones. Nevertheless, I accept this minor inconvenience happily in escaping extra weight and bulk.

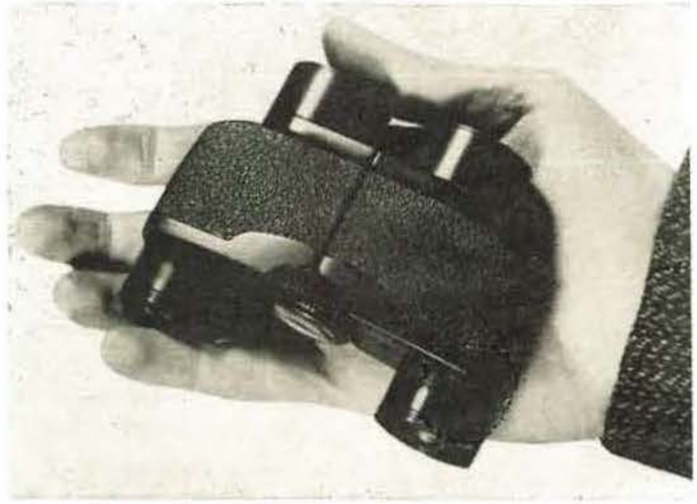
I HAVE A VERY interesting letter from Horace P. Morgan, executive director of the Resources Advisory Board, Southeast River Basins, Atlanta.

Mr. Morgan sent me a copy of an article on snakebite first aid, written by Homer E. Wassam and appearing in PEN Magazine, published by the Federal Postal Employees Association in Denver.

Mr. Wassam has done a lot of research on snakebite information and summarizes his findings in a few notes. He recommends that a victim cools or chills the part bitten, drinks plenty of fluids (not stimulants or opiates) and gets to a hospital as soon as possible. His summary indicates that, except for the part of the body being chilled, the patient should be kept warm to maintain circulation.

As I mentioned in an earlier column, the system of cut and suction has come under frequent attack recently, despite the fact that the suction snakebite kits are still selling well.

For that matter, the chilling system (*hypothermia*) has been widely criticized, but largely because original plans called for very cold applications for long periods of time. Applications of fresh water ice and other coolants, some of them from spray cans, are recommended by some physicians, the idea being that the cooling slows the progress of the venom.



Binoculars can be built so they will slip into a pocket and still have enough power for most uses. These Bushnell Custom Compacts are seven-power.

Nobody speaks up very plainly but I'd judge that the cut and suction system is falling deeper and deeper into disfavor. There is one thing all seem to agree on—reduced exertion is favorable to recovery.

Frankly, some of the opinions expressed by reputable physicians scare me a little. One surgeon says that if he received a bite on an arm or leg from a large Florida rattler, he'd amputate immediately, even in the field, and try to save his life with a tourniquet. He even said that if he were bitten while bird hunting, he'd blow his leg or arm off with a shotgun. This is pretty unpleasant business.

Another physician told me that he thinks it's necessary to cut very deeply and remove the venom-bearing blood—no job for a crappie fisherman with a pocket knife.

Pretty vague information, isn't it? Well, I'm one guy who isn't going out on a limb about snakebite. If I told you the wrong plug to use for bass, you might forgive me, but this snakebite business is something else again. I'm just passing it along.

BEFORE LAUNCHING on this next item I want it understood that I am no airboat jockey. My experience in airboats is principally confined to the ability to hang on to something until the driver says, "Here's where the fish are!", or some such thing.

I do know that airboats are pretty expensive unless you're a combination of engineer, mechanic and petty parts thief. For the fisherman or hunter who simply wants a boat to drive off into the grass and cattails, things are likely to be very, very costly.

I know that there are big, spacious airboats, little tippy ones, very powerful ones, and underpowered ones. I have ridden on some that went through, or over, almost anything and that would do a good job on dry land as long as the bottom lasted. These bigger boats, and most of the smaller ones, are built with aircraft engines, new or rebuilt, and for about $4,000 you can buy a pretty good boat with a new aircraft motor as produced in an Orlando factory. Comes now something that may be of interest to a guy without that much money to spend but still wanting to cross some flats his outboard boat refuses to negotiate.

Now there's a company, Recreation Technology, Inc., Box 13156, Orlando, Florida 32809, building a light airboat, the "Osprey," powered by a rebuilt Volkswagen engine. This one costs around $2,000, has a spacious fiberglass hull and carries two men and their equipment. The speed is up to 30 miles an hour, the designers claiming that "air lubrication" of the hull surface adds to operating efficiency.

Maintenance has been simplified by use of Volkswagen parts which are pretty easy to obtain. This may not be something to smash through a solid bank of cattails but it might serve the purpose of a lot of fishermen.

STRETCH IN FISHING lines is important stuff with people who expect to tax breaking strength to the last ounce. When playing a large fish, stretch has the happy faculty of taking up some of the slack if the fish makes a sudden turn and it also gives the fisherman a little leeway when he's slow in giving line.

This means the stretch is a sort of extension of the rod's flexibility, absorbing shocks and still keeping things taut. All of this is fine if the stretch is moderate. If it becomes excessive, there are a whole batch of troubles. For one thing, your outfit is no longer responsive. The fish keeps going when you want to stop him (especially heart-rending if he's heading into a pile of brush). For another thing, the line stretches as it goes on the reel, putting terrific strain on the spool, and can burst or warp it. That's why some of the really light spools aren't recommended for monofilament line, which traditionally stretches more than braided line.

At this point, let's not get carried away with flat statements about a certain type of line being more stretchy than another. Generally speaking, monofilament is stretchiest, braided nylon is next and dacron stretches the least, but there may be special characteristics of certain brands which will foul up the whole ball game. Then too, there are some braided lines that are made of materials not described by the manufacturers. Some monofilament is built "pre-stretched" or with the excessive elasticity otherwise reduced. This is non-technical (understatement of the month) but I think you get the idea.

Now, most things that stretch have "memory." That is, once the thing is stretched there will be a tendency for it to "unstretch" to a certain extent. This means that when you pull a piece of nylon very tight in making a knot, it will keep trying to untie itself and can loosen up after a short while. It is very smart to check on the knot after it's been used for a while. I don't do it very often, but have often wished I had.

Now in some kinds of fishing, it is important to take some of the stretch out of a piece of monofilament before tying a knot. They do this with the extra heavy material used in shock tippets for fly fishing before they tie the knots.

For example, if a character is going to splice a piece of 80-pound mono to a scrawny little 12-pound tippet, he has a pretty tough piece of knotting to do, and it is very important to reduce the stretch for knotting purposes.

So, this fellow puts a piece of cloth around his hand to prevent cuts, loops one end of the short piece around his foot and pulls as hard as he figures is safe. His gimmick is that once he gets 'er stretched, he holds it there for a considerable time; the longer he holds it, the less the material tends to go back to its original length and his knot is more permanent.

If you simply want to take the extra give out of a piece of line, keep it stretched for a considerable period. It will go right back to where it was after a short-term pull.

IF I EVER START a collection of fishing stuff I'll probably specialize in tackle boxes. I'd rather not know how many I've had but I'm always looking for something better—and usually bigger.

Generally speaking, the box manufacturers have neglected the fly fishermen. The finest fly tackle, until very recently, was aimed primarily at the

(*Continued on next page*)

New style airboats powered by rebuilt Volkswagen engines.

(Continued from preceding page)

trout and salmon fishermen up north and it is easy to drop a couple of grand at the counter of a fly tackle merchant specializing in trout stuff. In the container department are beautiful aluminum boxes for tiny trout flies and carved leather books for small streamers and stuff, none of which helps the type who fishes mainly with big flies and bugs for fresh water bass and salt water species.

About the cutest stunt to come up lately is a new Plano Fly and Bug Pak, designed by Tom McNally, a Chicago outdoor writer who does a lot of fly fishing. It's about 8″X 13″ X 3¼″ and built largely of transparent plastic. It opens from both sides and the advantages of keeping fly tackle so you can see the various items is pretty important, especially in the case of leader material. When you use tapered leaders you need a number of different tests at hand. The Plano box allows you to keep twelve different spools in plain sight.

There are some spaces for the really big streamers used by salt water fishermen and plenty of room for hooking in bugs and smaller streamers so they can all be seen. There's a space for a good-sized fly reel (not quite big enough for some of the more potent salt water numbers) and room for some small flies and a lot of gadgets. It's a good box. However, if I were going to use it for extended trips I'd keep a strap around it as the simple friction catch could be knocked loose in rough treatment. There's a briefcase-type handle.

A bigger box for fly fishermen has been designed by Old Pal with room in the big lid compartment to display a lot of flies in plain sight. There's no specific leader storage space but plenty of below-decks area for odds and ends like fly boxes, reels and lines. They call it the Royal Coachman, and they even have a rod that can be knocked down small enough to fit in.

Now I suppose everybody will build a fly fisherman's box. About time.

MAYBE IT'S A good thing that fishermen are a little narrowminded. It might get more expensive if every one of them wanted to try all kinds of fishing. It's been my experience that bluefish anglers prefer bluefish stories, bass fishermen seem to question the existence of any other kind of fish, and salt water trout fishermen are a cult of their own too.

But if any of you bass fishermen are in the snob class, you don't even hold a candle to some of the fresh water trout and salmon fishermen.

Last summer I was talking to a fresh water trout fisherman who is interested in going to South America where he can throw flies at trout supposed to be bigger than what the U.S. has to offer. It is an expensive trip but he's so eager he shakes. I got a little snoopy.

Nope, said my friend, he'd never caught a black bass, or any salt water fish on a fly rod—or any other kind of rod for that matter. He was brought up on trout, by golly, and any other fish can't be much.

And there was the midwestern bass fisherman who came down here and went tarpon fishing with me. He hooked and lost a bunch of 100-pounders but couldn't get very excited. Later he confided that a 4-pound bass would interest him a lot more.

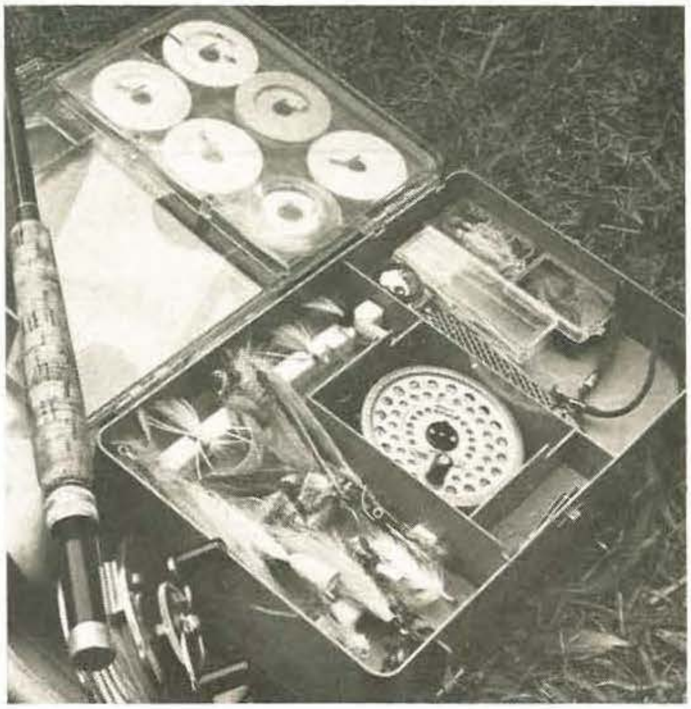
Good thing we're all different.

WHEN YOU TALK of money it's hard to raise anybody's eyebrows any more. A few years back a hundred-buck flyrod was spoken of with awe. Now the best way to sell some things is to boost the price. Some of the fishermen who want one of almost everything aren't handy enough to appreciate good tackle over bad, but they hang right in there. I know guys who have $250 Leonard rods and could do better with canepoles.

A guide I know has been working for a multimillionaire who loves fine tackle. He loves it so much that he doesn't do much fishing.

"We didn't fish today," the guide explained. "We just tested tackle. He generally brings fifteen or twenty rods and a dozen reels along. Crowds the boat."

No, the man isn't a tackle manufacturer or professional tester. He just likes a lot of fishing stuff. Anyway, such a guy shouldn't be disappointed if fishing is poor. ●



With opening from both sides, the Plano fly fisherman's box is intended to give the angler a good view of the contents through transparent lids. Note section for leader material.

The Largemouth Bass

By **GENE SMITH**

A LITTLE OLD lady tottered into the station house and told the gendarme at the desk, "Officer, I was assaulted."

"M'gosh, lady, let me get a full report," he said. "Now tell me, when did it happen?"

"It was in 1922," she trilled.

"In 1922? And you're just now reporting it?" blurted the cop.

"Oh, I'm not *reporting* it," she replied, "I just want to talk about it."

That story reminds me a lot of some fishermen I've known—the types who tell about having caught a real *monster* bass, or having seen one some other guy caught, that "just *had* to be a record fish!" But it usually turns out the catch was made back when Ol' Blue was a pup and the fish never was "officially weighed" if weighed at all. A tattered, undated Polaroid picture might seem to support the story that it was a real big 'un, however.

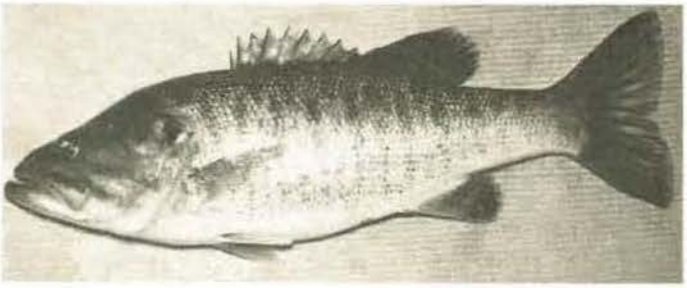
Big fish stories are fun to tell and relive because *some* of the catches might very well have been recordbreakers in some class, and because *none* of the stories can be disproved. Too, they're fun to tell because everybody knows "bass fishin' ain't what it used to be."

The fact is, fishing for largemouth bass in Florida appears to be just as good as ever in some—maybe even in *most*—of the state's traditionally good bass-producing waters. Perhaps it's the increased water fertility. Maybe more hooks in the water has something to do with it. Anyhow, judging from the state's outdoor press, both size and frequency of catches of bass are pretty darned remarkable.

(We pause to acknowledge that size alone is a sorry standard by which to judge fishing of any kind. "Meat" fishing has its points, sure, but the enjoyment and re-creation good fishing provide don't come by the pound.)

It's true that the recognized world record for largemouth bass— 22 lbs., 4 oz.—has been standing since 1932, but that's no sign some angler hasn't matched or broken it since then—and baked the evidence. Somewhat like our little old lady, it could've been that in all the excitement and hubbub of being the center of attention briefly, the average guy catching a lunker bass might fail to have his fish's weight and measurements verified for the record books.

A good many fishing camp discussions, newspaper outdoor columns, and a few letters to the Game and Fresh Water Fish Commission deplore the lack of an official list of Florida fresh water fishing records. Such would certainly be interesting to know and "shoot for," as many are inclined to do so. Many state game and fish agencies keep "record" records—probably with some additional headaches for the department in charge. But, so far, the nearest thing to a clearing house for fish records in Florida is the file on FLORIDA WILDLIFE's complimentary "fishing citations," issued to anglers for catches of certain game fish species meeting or exceeding minimum weights (see inside back cover for requirements).



Probably no species of gamefish gets the attention commanded by the largemouth bass—at least not in the Southeast. A big bass has long been the special attraction in Florida waters.

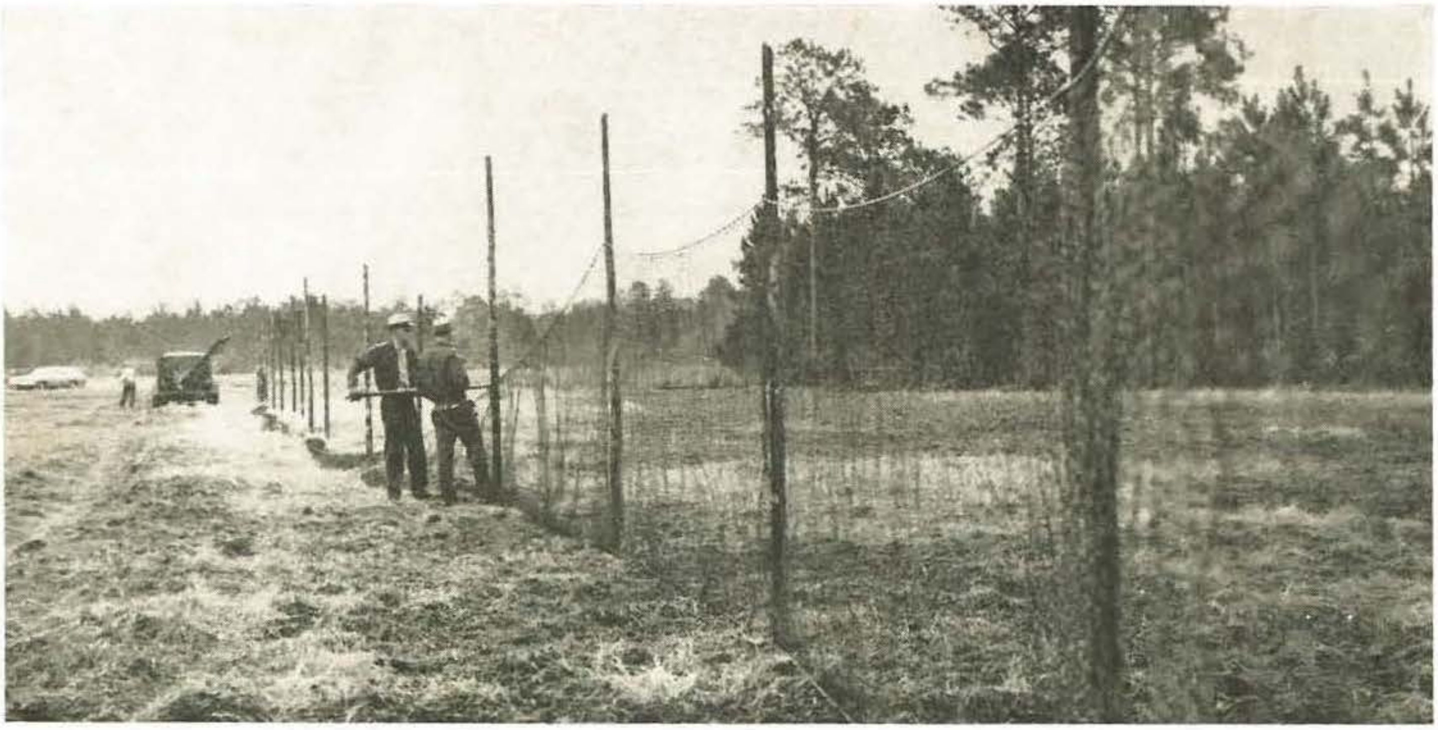
These citation records are by no means an official registry of "record" hook and line catches in Florida. Obviously, they're incomplete because only a few big catches get cited. State newspapers continually carry accounts of 12, 16, 17, and sometimes an 18-pound largemouth bass, for example, for which no FLORIDA WILDLIFE fishing citations are requested.

One such bass that *was not cited* by FLORIDA WILDLIFE as far as we know, was an 18-pounder caught from Lake Jackson, Leon County's widely known bass haven. Joe Stokely of Woodville caught it on a Paw Paw lure in March 1966. It was weighed and photographed by Red Smith of Tallahassee, Lake Jackson fishing camp operator, before several witnesses.

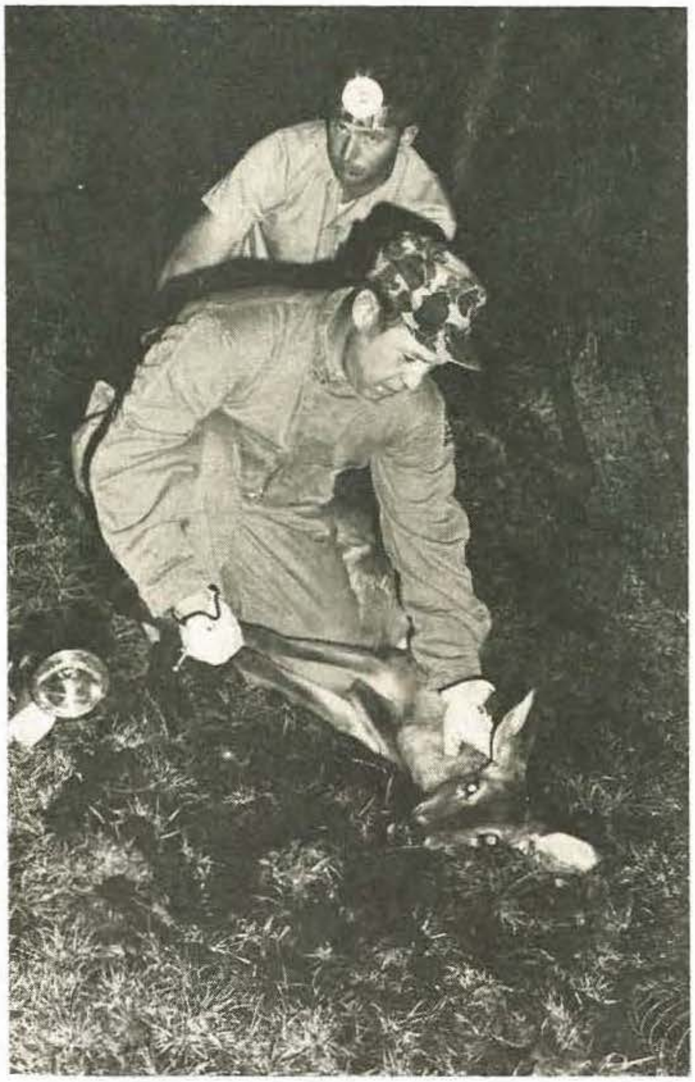
The largest bass for which a citation *was* requested, and for which one was issued, was caught by Gerald T. Bland of Lee, Florida. It, too, weighed 18 lbs. It was caught on a canepole "jigging" rig in March 1967. According to his citation application, Bland's fish measured 28¼ inches, tip-to-tip. And, it came from "the southwest part of Madison County." (That's all *we* got; that's all *you* get.) He did say he used 85-pound-test line and a pork-rind for bait.

The largest bass caught in Florida waters? It was probably the 19-pounder caught by W. A. Witt of Tampa on June 26, 1961 from Lake Tarpon in Pinellas County. That still stands as an 8-pound-test tackle record as recognized by the International Spin Fishing Association, P.O. Box 81, Downey, California 90241.

Unofficially, Witt's 19-pound catch may be considered the closest thing to a "Florida record" on largemouth bass, although no agency, publication, organization, or person is likely to say so in black and white—because nobody really knows . . . ●



Deer trapping is not the solution to deer distribution problem, but the Game Commission, with luck, can catch enough to furnish "penalty deer" ordered by the courts. Nets, above, are erected by day. At night, below, captured deer are bulldogged and processed for shipment.



Deer Trapping

If you've ever seen a frightened deer in the wild you should have little difficulty imagining the skill and know-how required to trap this extremely sensitive game animal. But unless you've actually watched such an operation you have little idea of the sheer strength and effort required to catch, subdue, tag, and crate an adult whitetail for shipment once it's successfully "incarcerated!" It's a little like a wild west rodeo—always exciting; sometimes a little dangerous.

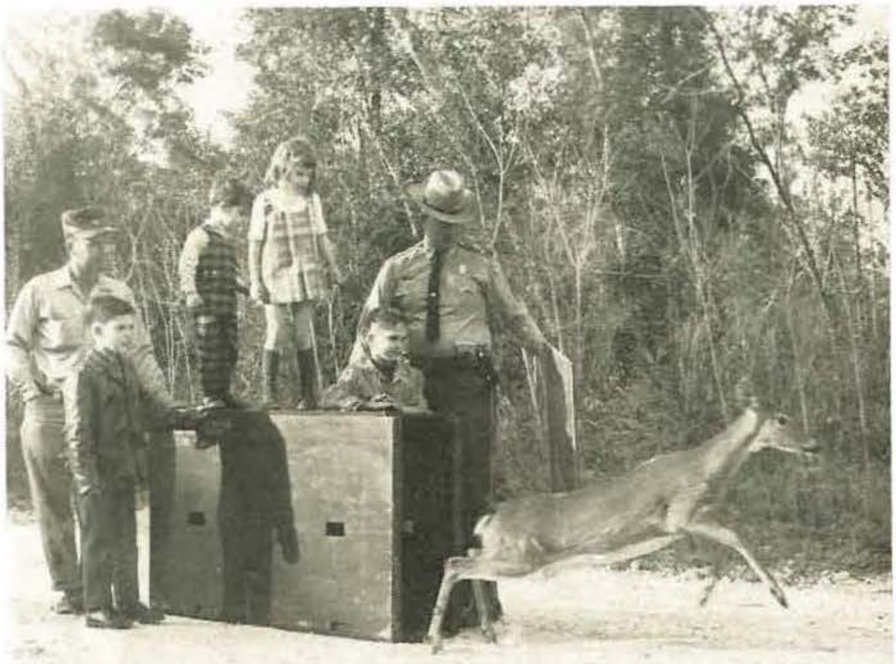
Trapping deer on a large scale, say, for population control, is numerically impossible in Florida. However, it sometimes becomes necessary for the Game and Fresh Water Fish Commission to trap and move fairly good numbers of deer. Such restocking is nothing new. Occasionally it is done for study purposes, but more often to obtain deer ordered by the courts to replace those taken by convicted game law violators, who pay the bill as part of their fines. We call such replacements "penalty deer."

After several years of experimenting with numerous trap designs, Game Management Division personnel developed a web-type, portable trap-and-pen combination capable of capturing and holding several deer at a time with minimum injury to the understandably frantic animals.

One oft-used source of deer is a large private ranch in north Florida. As a result of quality habitat, intensive management, limited hunting, and good protection by the owner, the deer herd periodically becomes overcrowded.

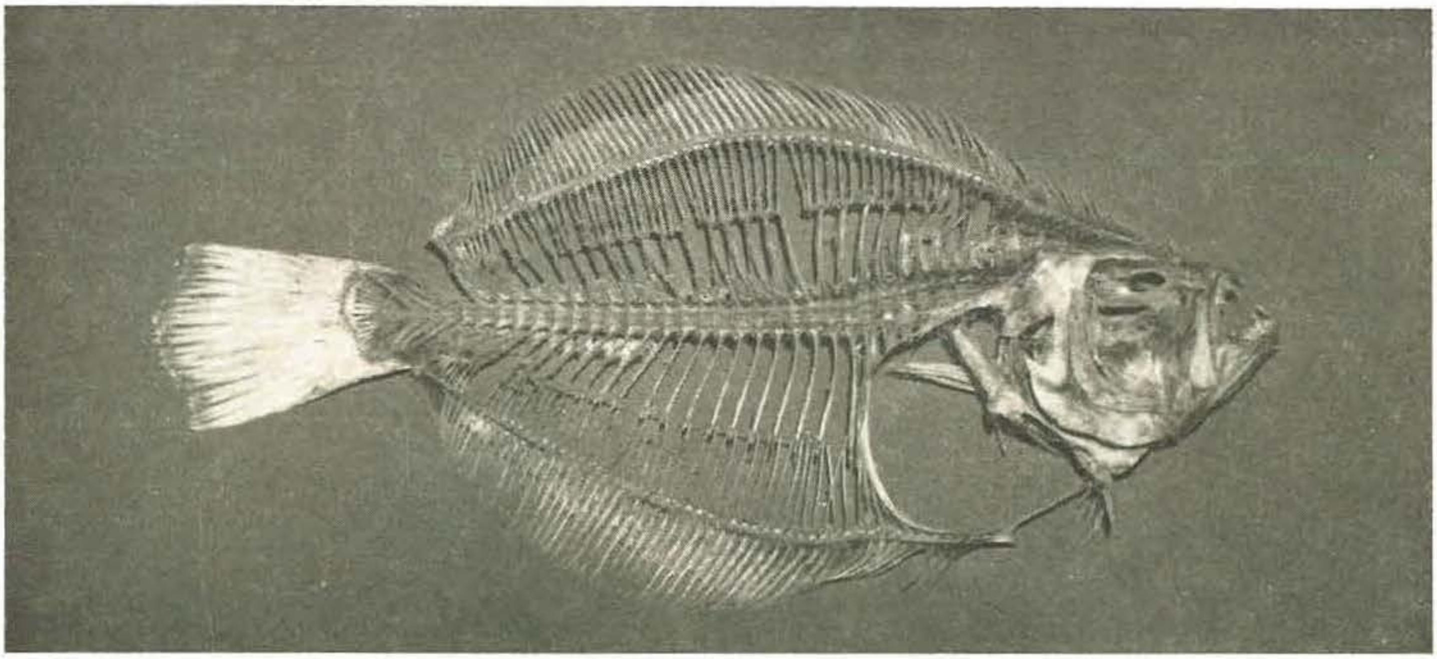
All the factors meshed this year. A large number of penalty deer were due in various parts of the state; deer were available in good numbers on the private ranch; the Game Management crew felt "up to the job."

Forty doe deer were trapped and relocated to help improve future hunting around the state. ●



Trapping deer can be successful only under certain exacting conditions. Each animal is measured and tagged before being placed in the special carrying crate designed for its safety. A young doe makes her debut, right, and then off to establish a new home range.

Photo Story
By LAURENCE ROSSIGNOL



the preparation of

Skeletal Fish

to understand the prehistoric past

By CHRISTOPHER E. HAMILTON
and CAROLYN A. RUESCH

DIGGING INTO THE past has always been a fascinating enterprise—and we're not referring to the work of the shady private detective. It is fascinating not only because people are naturally curious but because there is so much to be learned about ourselves by the serious study of people, things, and events—cultures—that have gone before.

Every crossword puzzler knows the name of the science that deals with such work, the systematic recovery and study of material evidence remaining from man's life in times past. It is *archaeology*. Add the prefix *zoo-* to that word and you have the term for a related science, *zooarchaeology*, the recovery and study of *animal* remains found in archaeological sites.

The zooarchaeologist's job is to identify and analyze these remains to discover more about the habits and life style of early peoples. For example, animal remains can show a pattern of diet. They can often help us determine the methods of fishing and hunting, or when a site was occupied.

In many cases these artifacts are found in a religious or ceremonial context, which enables us to draw conclusions about this aspect of the particular culture being studied. Thus, the study of birds, fish, and mammal remains found in association with early man can give us a great deal of insight into his way of life.

Excavated material can tell us *which species* were important as food sources. For instance, in the Indian mounds of the northwest Florida coast large amounts of jack crevalle bones are found. An analysis of these bones shows not only that this was a plentiful food fish but that the individual fish taken in prehistoric times averaged much larger in size than those taken today! We are also able to tell that the people lived in certain places at certain times of the year, since the jack run in seasonal migration.

Fish remains can tell us many other things—such as what the prehistoric people used to catch fish. We know that some species will not take a lure or a hook and must have been either speared or netted. To support this, *evidence* of fishing nets has been found. The nets themselves are not preserved in the warm, moist climate, but clay pots have been found with the impression of the nets pressed into the wet clay.

The kinds of fish remains found can also tell something of the fishing methods employed since we know some species are deepwater forms while others frequent the shallows and can be caught by fishing from shore or just offshore.

In order to aid archaeologists in reconstructing the way early people lived, the zooarchaeologist needs whole, connected, or *articulated,* specimens of present day fish and animal skeletons for comparison with bones recovered from study sites. Our job has been to produce, for comparative analysis, articulated fish skeletons. We have been fortunate in being able to assist one of the foremost zooarchaeologists in the nation, Professor Stanley J. Olsen of the Department of Anthropology at Florida State University, Tallahassee.

The preparation of skeletons of fishes is more time-consuming than difficult. Although an occasional specimen can be completed in two days, the average time required is about a week. A particularly difficult one can take as long as two weeks. Actual working time may be only 15 or 20 hours, the rest of the time being consumed by soaking the specimen in chemical solutions and drying them. It should be emphasized that patience and extreme care, not specialized knowledge, determine the degree of success.

How we get specimens to be prepared is important. Netting is the preferred method because it does the least damage to the skeleton. However, since good specimens of some species are hard to come by, one might be wise to prepare even those damaged by spear or hook. A damaged specimen is better than none and can easily be replaced with a better one if the occasion presents itself.

Freezing is the best method of preserving uncleaned specimens, in that it makes scaling and skinning easier and tends to break down the fleshy tissue without harming the articulation of the bones. The latter is a most desirable feature.

Some of the materials needed to prepare specimens are ordinary household goods. Others must be ordered through chemical supply houses. Household ammonia is a very important part of the process; sodium hypochlorite, or its common form—Clorox—is another. A 30% solution of hydrogen peroxide is also needed. All three are readily available, of course.

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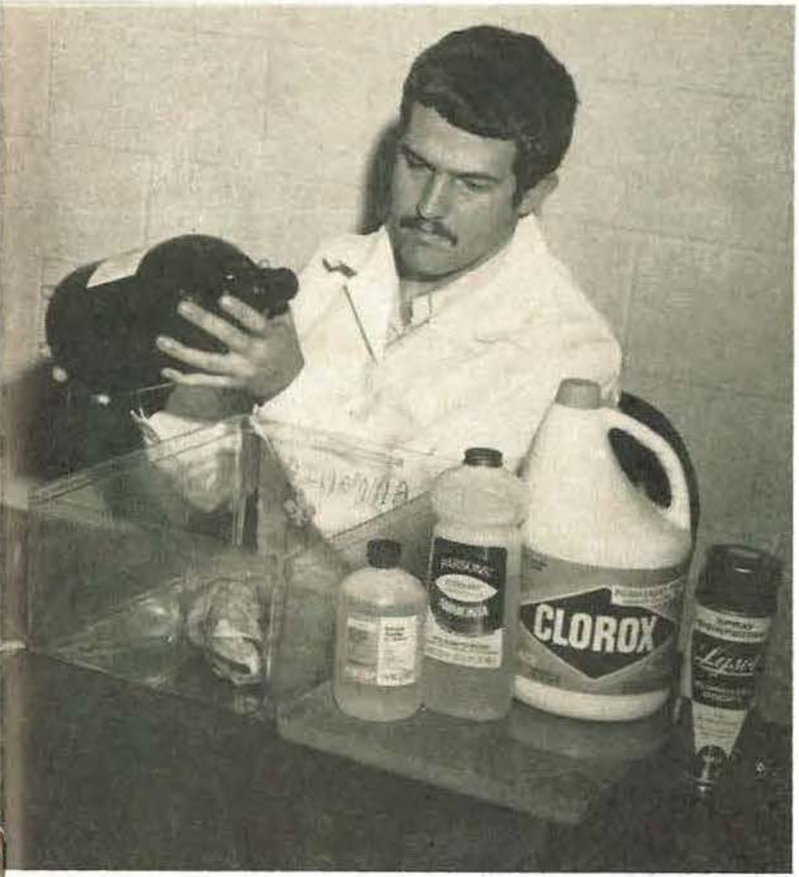
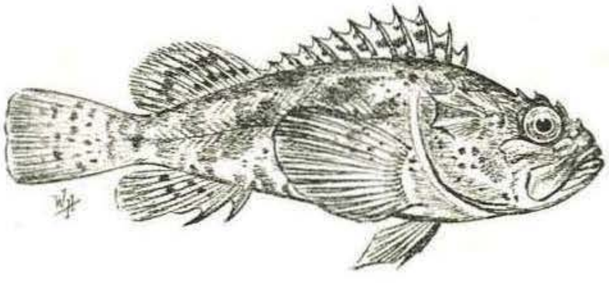
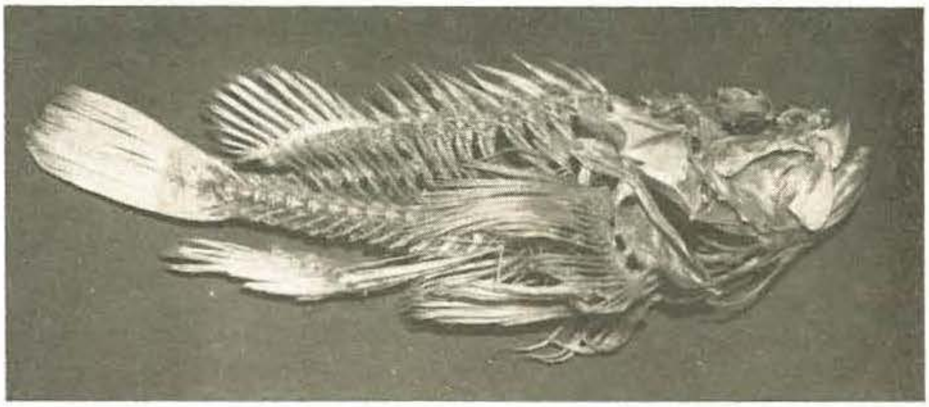




Some products used in skeletal preparation are common household products but extremely dangerous if combined. Never mix household ammonia and bleach. They produce poisonous chlorine gas. Skeleton and illustration at right are Scorpionfish; on opposite page, a Gulf flounder. The disinfectant/deodorizer is not really required—but it sure helps!



(*Continued from preceding page*)

The necessary tools are those normally found in a biology student's dissecting kit: a scalpel, bone scraper, probe, tissue forceps, scissors, and, in some cases, needle nose pliers, which are useful in removing skin. These kits are usually available at university stores or through biological supply houses for three or four dollars. A medical and surgical supply dealer is another good source of tools.

In the event that you break, cut, or otherwise accidentally separate, or disarticulate, a bone during preparation, Elmer's Glue is a good repair material. Such repairs should be made on a finished, dry specimen only, however, since the glue is water soluble.

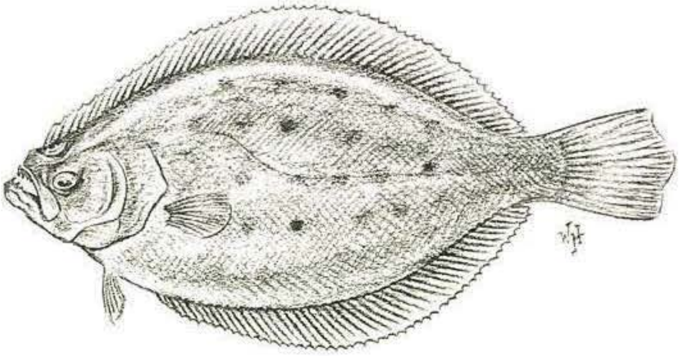
We found in our work that two general categories of fish exist: the fatty, or fleshy, fish and the bony fish. As one progresses—with several preparations "under his belt"—these types will become quite distinct.

An example of a fleshy fish is the Scorpionfish (*Scorpaena plumieri*) in the illustration. Needless to say, because of the poisonous dorsal spines in this species extra care must be taken when working with it. This category includes fish that are much greasier than the others. The dried skeleton of a fleshy fish may retain so much natural grease it will be stained a deep orange in color. (A secondary method of removing grease before it stains a specimen will be given later.) When cleaning a fatty fish more flesh has to be left at connecting points since articulation is very weak. Removal of too much tissue will cause the bones to come apart.

Our example of a bony fish is the Gulf flounder (*Paralichthys albigutta*). In the flounder we still have the grease stain problem, but in its initial cleaning practically all fleshy material may be safely and easily removed—which helps.

The general method of preparation is as follows:

Skinning and roughing out is the first step. In some species—those with large scales—it is best to scale the fish first. Skinning is then easier. This process is well known to most Floridians and needs little explanation. One should, of course, avoid cutting bones, especially the ribs, and in the skinning one should leave a marginal strip of skin around the fish to help hold all the fins in position. The ribs are particularly difficult to clean, and in most cases some flesh will remain on them. When dried it is hardly noticeable. Gutting must be done rather carefully with the separation of the skin from the ends of the ribs. Removal of the entrails can then be accomplished with the aid of forceps. The heart and other organs may be removed after careful clipping of their connecting or anchoring tissues. The gills should not be removed; they are part of the skeleton. The tongue should also be left in place; it shrivels and becomes unnoticeable. No attempt should be made to clean the fin rays since this portion of the fish's skin will "burn" off later during a Clorox bath.



The next step is the soaking of the specimen in a 6% solution of ammonia for at least 24 hours. The ammonia turns the soft parts to a jellylike substance which is more easily removed. The eyes may be removed now, along with the fleshy parts of the cheeks. This must be done very carefully because a bone ring, or cup, often surrounds the eye. It should not be broken.

The large spines of the dorsal and ventral fins are easily cleaned with a bone scraper. Tendons and muscles may be snipped away with scalpel or scissors. Again, care must be taken in the removal of flesh from the head area. Often the bones on the sides of the face, in the opercular complex, are only weakly connected at best. Careless cutting will cause them to fall away. Weak articulation is also characteristic of the pelvic fins and girdle. These should be handled accordingly.

After the ammonia bath and cleaning, the specimen should be thoroughly washed in gently flowing water—to remove all traces of ammonia. *This is very important*, as we'll see.

At this point most of the flesh that is easily cut away should have been removed from the fish's skeleton. The next order of business is the sodium hypochlorite treatement.

Full strength Clorox (5.259% solution) may be used on sturdy specimens. On more fragile ones the solution may be diluted. *Never immerse the specimen in Clorox immediately after its removal from the ammonia bath.* Wash it first and allow a few minutes for any lingering traces of ammonia to evaporate. *Never mix these two chemicals.* Sodium hypochlorite and ammonia react to produce deadly chlorine gas, which, if inhaled, can cause serious lung damage—or worse. It is not unlike the infamous mustard gas of World War I. Chlorine gas can and will kill a person who breathes it. We cannot stress strongly enough the necessity for being careful *not to let these two chemicals get together!*

The Clorox treatment amounts to a dunking; not soaking. Complete immersion of the skeleton in sodium hypochlorite should not last more than 30 seconds at a time. Generally, the flesh remaining around the head, ribs and fins will burn away. The specimen must be watched at all times during this phase since the solution will begin eating away at the fins and small bones. If left in Clorox too long, the entire skeleton will simply come apart and dissolve. Any flesh remaining in quantity may now be removed. A small amount will not hurt since it will shrivel and become barely noticeable. In fact, it may strengthen the specimen at points of articulation if some flesh is left there.

Next in the process we use a 30% solution of hydrogen peroxide—mixed one part peroxide to 11 parts water. This solution will also aid in removing flesh but its main purpose is to whiten the specimen and draw off as much excess grease as possible. After initial immersion of about three hours, periodic removal of the specimen, followed by drying under a lamp, with subsequent reimmersion and drying, will help in the removal of grease and will lend a temporary white appearance.

It may be noted that the specimens in the illustrations are not completely white. This is because we were not able to degrease the specimens other than in the method described above.

A simple and effective method of more completely removing the grease from a specimen is with the aid of a ventilated vaporizer. Such an aid is not hard to make. The principle employed is to heat the solvent in the bottom of a container and to condense it at the top. A vaporizer may be made from an oil drum, a heat source—such as an electric immersion coil—and a cooling coil. Trichlorethylene is a relatively safe solvent to use. It is not flammable, but breathing the fumes should be avoided, as with any other chemical.

After several hours in the vaporizer the skeleton should be allowed to cool. It may be returned if necessary. Some skeletons will turn yellow even after vaporizer degreasing; others can be easily bleached by re-immersion in peroxide solution.

None of several other effective chemicals used for degreasing are safe to use without proper ventilation and absolute isolation from a source of accidental explosion. (Among them are zylene and carbon tetrachloride.) So—"no smoking" around combustibles! By following the above guidelines, and with the equipment described, specimens can be safely and effectively prepared for use in scientific studies.

One reminder in closing: when drying your completed specimen you should set it in the position desired before you leave it. Only resoaking in ammonia will loosen it enough to permit rearranging after drying. Water should not be used since it promotes rotting.

We would like to express our appreciation to Professor Olsen and the Department of Anthropology of Florida State University for supplying the funds and time necessary for this project. We would also like to thank Andrew Konnerth, research specialist for Woods Hole Oceanographic Institution in Massachusetts, whose work, "Preparation of Ligamentary Articulated Fish Skeletons," contribution No. 1712 from the Institution, and whose personal communication with regard to the degreasing equipment, aided in our study. ●

The authors are shown with a completed study skeleton, used for comparing with bones from archaeological site, the small, dark colored pieces pictured. Some long dead Indian campfire broiled a meal of Scorpionfish, proven by close comparison of the "old" and "new."

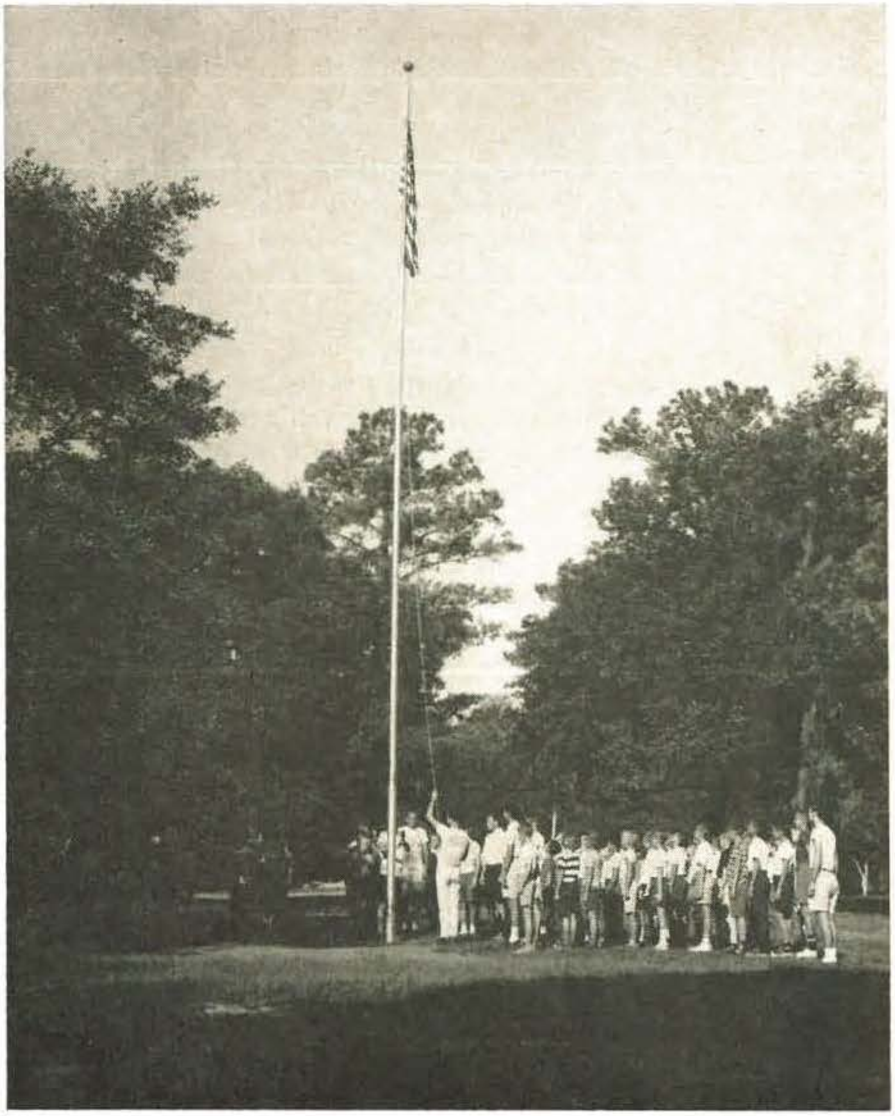


Photo By Art Runnels

lots of outdoor fun along
with learning about wildlife,
conservation and nature, plus
hunting and fishing facts

Summer Youth Camps

By GENE SMITH

YOUTH CONSERVATION Camp time is here—almost. It's time to make your plans to attend; write for application and health forms; get that reservation nailed down.

Who may go? Youngsters between the ages of eight and 14.

When? There are one- and two-week encampments for boys; girls may attend for one week. The opening session (for boys) begins June 14. (See the schedule for the entire summer program.)

Where? Two youth camps are operated by the Game and Fresh Water Fish Commission. The camp at Lake Eaton in the Ocala National Forest, Marion County, will be opening its gates for the 17th annual session this year. The "younger" South Florida Youth Camp, located in the J. W. Corbett Wildlife Management Area in Palm Beach County—west of West Palm Beach—will be entering its second year of operation.

What does it cost? The camper's fee is $35.00 per week, plus 4% sales tax for a total of $36.40 per week. This amount covers everything except the few dollars a camper will need for "spending money" at the camp canteen—for snacks, post cards and similar small items. Five bucks per week usually does it.

Where do I get full information and the forms? Two places. For those interested in attending the

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Here are the camping schedules for both camps for 1970:

Ocala (10 weeks)	
June 14–20	Boys, One Week
June 21–27	Boys, One Week
June 28–July 4	Boys, One Week
July 5–18	Boys, Two Weeks
July 19–25	Boys, One Week
July 26–August 1	Boys, One Week
August 2–15	Boys, Two Weeks
August 16–22	Girls, One Week
South Florida (6 weeks)	
June 14–20	Boys, One Week
June 21–July 4	Boys, Two Weeks
July 5–11	Boys, One Week
July 12–18	Boys, One Week
July 19–25	Girls, One Week

Photo By Jim Reed

Typical scenes at youth camp on Lake Eaton near Ocala: at left, the impressive flag-raising ceremony; above, the nature study "comes alive" with genuine wildlife training aids—the alligator is a favorite. The anglerettes, right, get tips on cane pole fishing—also learn to use rods and reels.

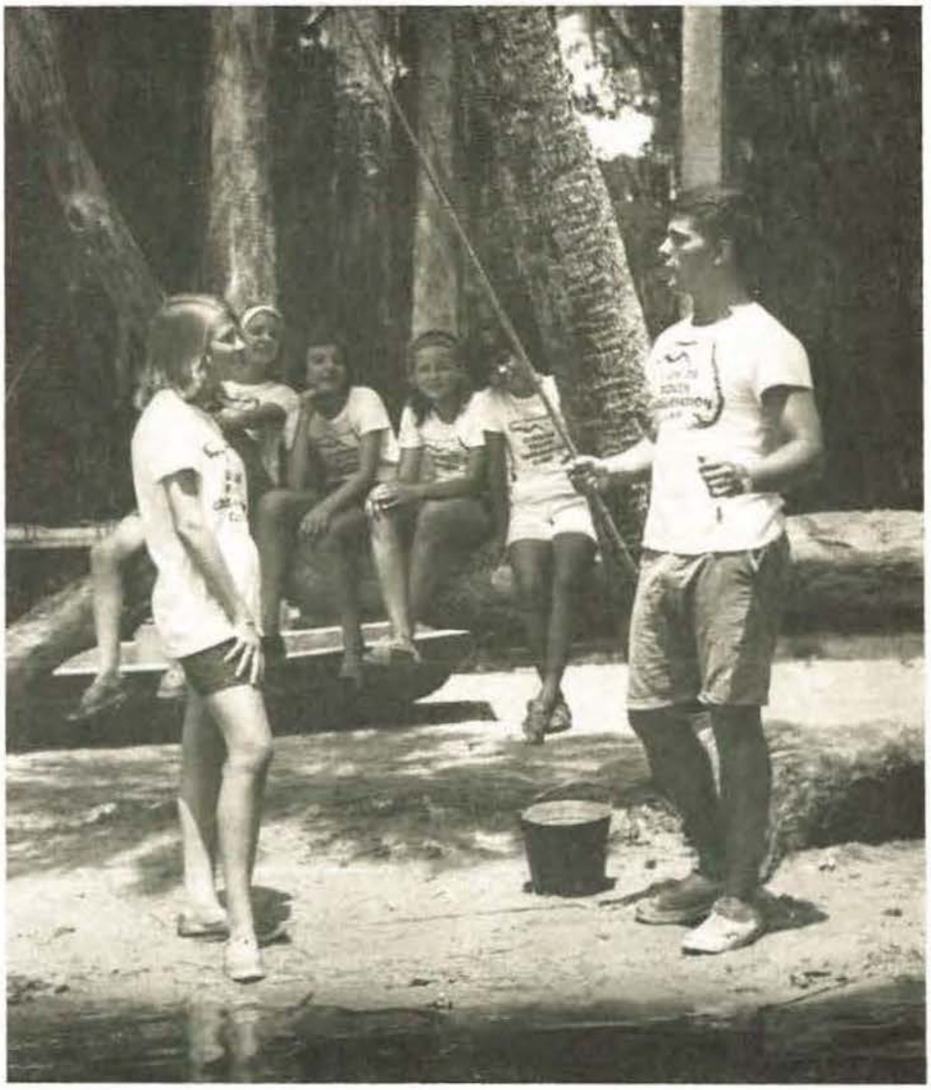


Photo By Janet Alexander

Photo By Jim Brantly

Campers learn about all forms of wildlife—from butterflies to black bears. Ecology, the study of relationships of living things to the environment, is also taught. Nature and conservation is a popular class with young summer campers.

South Florida Camp, write or call Lt. Jim Brantly, Florida Game and Fresh Water Fish Commission, 551 North Military Trail, W. Palm Beach, Florida 33406—telephone (305) 683-0748.

If you're closer to Ocala and would like to attend the camp at Lake Eaton in the national forest, get in touch with Lt. Floyd H. Dennard, Game & Fish Commission, 1239 S.W. 10th Street, Ocala, 32670—'phone (904) 622-7158.

There are facilities for about 175 campers per session at the Ocala camp. At the South Florida camp, which is still under development, only around 80 will be accepted per encampment. For space availability for a particular camping period, check with the appropriate Commission officer, Dennard or Brantly, or his office.

What goes on at Youth Conservation Camp, anyway? The program includes a variety of outdoor-oriented activities unlike those of any other summer camp in the area. They can be listed generally as resource education, campcraft, nature study, instruction in fishing, canoeing, and firearms and archery markmanship and safety, swimming, wilderness survival, and outdoor recreation. There are

(Continued on next page)

(*Continued from preceding page*)

hikes, nature walks, wildlife workshops, instruction in basic game and fish biology and management, and interesting sessions on Indian lore.

Add to these the fun of group sports and athletics, the good training of individual responsibilities in camp housekeeping, the singing and skits at talent time—and the enjoyment of good wholesome food served up in ample portions! That's what youth camp is all about.

Mothers and dads can appreciate the careful selection and training of the camp staff, the cabin counselors, and the instructors. All are experts in their fields and qualified to handle most any situation. Yes, there's a registered nurse on the resident staff, and no, there are no poisonous snakes in the animal compound. It's hard to imagine a safer, more healthful, or more educationally beneficial vacation environment than that provided by the Commision's youth conservation camp program.

The best judges of this are, of course, the campers themselves.

In an effort to learn what Florida youngsters who have attended youth camp think of it—and what they would suggest to improve the program—lengthy questionnaires were mailed to 1,000 of them. The response was somewhat astonishing. Over 50% have completed and returned the questionnaires so far—in itself a fair testimonial of the impression made on last summer's campers.

Not all the questionnaires have been tabulated, but a sampling of the replies, which were heavily favorable, indicates that campers heard about the program largely from friends—almost two-to-one over news media and other sources. The most popular activities, in order, were riflery, nature and conservation study, archery, conoeing, swimming, crafts and Indian lore, and fishing.

Four hundred forty-six campers liked their instructors; 7 didn't. Four hundred forty liked their counselors; 20 checked "no." To the question, "Did you get enough to eat?" 439 said "yes;" 17, "no." The food was rated "excellent" by 156, "good" by 219, and "fair" by 73 respondents to the question.

Three hundred eighty-one said their quarters were comfortable; 55 said "no." Nearly everybody liked the campouts and campfire programs and afternoon activities; 391 indicated that classroom work was interesting while 38 voted "no." Interestingly, 302 respondents thought class periods were "just right;" 86 said "too short;" 58 checked "too long."

Three hundred sixty-six would have liked more hikes while 86 wouldn't have. To the question, "Would you like more or fewer activities?" 358 checked "more;" 54 wanted "fewer." Three hundred twenty-three felt they had enough free time to 132 who checked "no."

Quite predictably, 427 of the 435 respondents said "yes" to the question, "Did you like the animal compound?" They liked mammals, reptiles and amphibians, in that order.

Animals get lots of attention from campers—this rowdy bear cub found playmates. The boys learned he weighed only 6 to 10 ounces at birth; that bears don't hibernate in the South.

Of those returning the completed questionnaires, 355 had been to youth camp only once; 103 were repeat campers. To a companion question, "Would you like to come to Youth Conservation Camp again?" the "ayes" got 345, the "nays" only 26.

In a free-for-all question, "What would you like improved or added to the camp program?," which invited parent as well as camper comment, the replies were interesting and varied—often humorous:

"Kill all the mosquitos!"

"Television in all the cabins."

"A cleaner lake to swim in."

"I must commend your counselor training," wrote a parent. ". . . wish every child in Florida could attend."

"You should let some people catch snakes and bring them home."

"Our son enjoyed camp; is looking forward to another week this summer. He talked for weeks about it . . . a big thank you for helping us teach him the importance of conservation."

"Omit nap time."

"Coke machines and girls," a few boys said they'd like added. Some indicated they'd settle just for the soft drinks. A couple just said "girls." (Conversely, no girl campers mentioned boys, boys!)

A number of youngsters made a good strong case against sulphur water—the best, or worst, spelling was "sulffer"—and, in fact, the majority of constructive comment dealt with water, latrine and laundry facilities.

Several mothers bemoaned the fact that their sons came home scruffy—and with their suitcases full of clean clothing and towels, obviously not too much used! (Boys will be boys!) They urged more soap and water; more supervision at showering and tooth-brushing time.

A number of families had two or three children attending camp last summer. These particularly commented on the very reasonable cost of $30.00 per week per camper. Although the rate is slightly higher for the 1970 season—necessary because of rising costs of operation—many campers indicated in their replies they earn at least a portion of their own expense money. So it's not likely the extra five-plus-tax will prevent a determined youngster's trip to Youth Conservation Camp. It'll just mean a couple more lawns to mow; a few more cars to wash; another baby or two to "sit."

A number of campers asked for the 1970 schedules.

The Commission is continually attempting to update its camp curriculum, improve its physical facilities, and expand the program to include more young people. Supporters of the youth camp program, financially and otherwise, are convinced that conservation education is no less important than any other kind.

Florida's future will be greatly influenced by the next generation—today's summer campers, who will be tomorrow's educators, scientists, engineers, political leaders; its clergyman, farmers, foresters; its mechanics and merchants—all consumers; all resource-users; all with a hand in determining the quality of life in their time and beyond.

By their brief but intense "exposure" to nature

(Continued on next page)

Of all camp activities, riflery was number one in popularity with campers according to survey. Boys and girls receive gun handling and hunter safety instruction before actually firing on the range, right. Canoeing, below, is taught—there are right and wrong ways to balance and paddle.

Photos By Jim Reed

Campers' health and safety are of utmost concern to camp staff, which includes a registered nurse. Most common ailments can be cared for at camp but medical attention is only a few miles away in case of emergencies. Poison ivy and mosquito bites, plus an occasional toothache, are typical "cases" at camp. Even homesickness can be successfully treated there.

Photo By Jim Reed

(Continued from preceding page)

and natural laws at youth camp, and through their development of a basic understanding of the web of life, certain patterns will be established which will influence their future decisions on conservation and other great environmental issues.

This is part of what the Commission's youth camp program hopes to implant in the fertile minds of participating youngsters. Some call it "a conservation conscience." It embraces knowledge of the out-of-doors, but broadens into skills at enjoying the rugged life. It also takes in appreciation of nature's bounties and her beauties. And, hopefully, it results in abiding concern for the future of the state and nation. Should we fail, then Florida probably has more to lose than most states. Not only youth camps but schools, churches, news media, and, of course, parents must join together to teach responsibility in the area of natural resource conservation.

The Commision's two youth conservation camps need not—and do not—sit idle during the fall and winter months. Expanded use of the facilities is invited and made available—to school groups for science workshops and field trips; to scouts and church groups for weekend campouts and retreats; to junior or adult conservation and sportman clubs for meetings and cookouts; and to day camps and schools for scheduled outdoor functions and classes.

Costs for such use are nominal; set to cover only necessary expenses.

Again this year, working in cooperation with the Division of Youth Services, the Game & Fish Commission is making the Ocala Camp available to youngsters from the Okeechobee and Marianna schools for boys. The respective schools will send groups in alternating encampments between May 3 and June 13 and again between August 23 and September 19—before and after the regular summer seasons.

Last year's program for the boys school groups was widely acclaimed for its contribution to their education and for providing a wholesome outdoor experience which had not been available to them before.

The youth conservation camp program is gaining momentum every year. The South Florida Youth Camp, beset with funding problems for years, had a timely "shot in the arm" in January. An unidentified benefactor presented the camp fund a check for $30,000.00—to help offset heavy losses sustained at the camp when a tornado visited it in December 1969 and wrecked the place. (Last year an anonymous donation of $10,000.00 helped the camp open on time for its first session, which was successful in spite of some temporary inconveniences.)

The chief problem at SFYC was—and is—a drinkable water supply. A complete water supply system was donated and installed—but the water it delivers doesn't pass "inspection." Too much iron and suspended solids. Hours of running water doesn't change the picture in the samples. It appears that an expensive water treatment plant is required if the camp is to have good water.

To help provide one, state outdoor recreation funds may be forthcoming. The Florida Outdoor Recreation Advisory Committee has recommended the release of $45,000.00 for use at SFYC. Approval must come from the Executive Board of the Department of Natural Resources (the Cabinet).

In the meantime, any contributions of building materials, labor, cash, bedding and other furniture, camp kitchen equipment, certain firearms and other sports equipment (including canoes), books, and many other items—such gifts would be appreciated.

It is difficult to imagine a more worthwhile cause to support. We need another youth conservation camp to serve north and northwest Florida. And time is of the essence. ●

Muzzle Flashes

with warmer weather fast approaching—and sporting goods like money in the bank these days—start preparing for proper summer storage

By EDMUND McLAURIN

MANY HUNTERS have put away their guns, feeling the shooting sport has ended until "next season."

This need not be. There is plenty of field shooting to be enjoyed between now and next fall.

Rabbits can be legally hunted year around in Florida. Their taking offers great sport and excellent shooting practice—in addition, of course, to putting tasty meat on the table.

There is no closed season on fox, bobcat, raccoon and crow (although a hunting license is required when hunting the fur-bearing animals).

Often a farmer or rancher will give a courteous sportsman permission to hunt these critters if the guest agrees to observe a few basic ground rules. Most landowners are especially glad to be rid of a few crows from time to time!

For the shotgunner, crow shooting can be a most exciting and challenging "between seasons" sport. Crows are numerous—and they are smart! A successful crow hunting technique calls for a great deal of "savvy" on the part of the gunner. He must take advantage of camouflage; he should be in a good blind—natural or otherwise—preferably in a known crow flyway; he should use a few lifelike crow decoys, an owl decoy, and a natural-sounding crow caller.

Good, inexpensive mouth-operated crow calls are available—the Hiester, Green Head, Olt, Lohman, Faulk, Ditto, and Beauchamp brands come readily to mind. Of course, there are many others. All are effective when mastered, and only a few basic calls —really *imitations* of calls—need to be learned: the urgent, high-pitched distress call of a young crow, the "high ball," or hail call, and the raucus, "wake-the-dead," "fussing" call.

Better yet is the audio-type amplified crow talk. It is nearly foolproof—and it saves a lot of breath, which comes pretty short in fast, excited shooting action! The trouble with most of the electronic sound systems is that they are usually bulky, heavy —and rather expensive.

An exception is the "Bounty Hunter," a flashlight battery-powered portable record player that weighs only 5½ pounds, including the six "D" size cells it takes. You can carry the "Bounty Hunter" anywhere.

When ready to use the unit, you merely slip a recording into a slot and "the music" starts. At the end of the play the record is ejected and the player turns itself off automatically. For really long distance calling, an accessory 30-watt speaker can be attached.

Three different crow recordings can be had—also records giving natural sounds that attract the other varmints we mentioned without closed season —fox, 'cat and 'coon.

The "Bounty Hunter" is made by Electronic Game Calls, Inc., Wisconsin Rapids, Wisconsin 54484, if you're interested in obtaining more information.

IN SELECTING and firing our various modern hunting loads and bullet styles, probably not one in a million powder burners ever pause to reflect on the fact that the American Indian also used different bow weights and variously shaped arrowpoints for specific purposes.

(*Continued on next page*)

Photo By Lovett Williams

A crow hunter is usually welcomed by farmers. These rascals are no cinch to take, either. A good crow hunter has to work at it a little, using camouflage, wit, calling skill—and a good aim.

High base, low base—whatever the brand—shotshell manufacturing has reached more than 200 different operations to produce a single ready-to-use shell. Care is taken to see that ammunition reaches consumer in most efficient, durable form. The unused sporting ammunition is like money in the bank, and it pays to keep them in the best possible storage.

(Continued from preceding page)

Like the modern reloader who experiments and finds certain bullet shapes and weights shoot better than others, so the Indian experimented with different styles, sizes and weights of arrowheads to find those best suited for target accuracy and killing properties.

It is interesting to study a collection of ancient Indian arrowheads and attempt to match them to some of our popular rifle calibers.

CURRENT EDITIONS of the standard reloading guides, like the *Lyman Handbook, Speer Manual For Reloading, Belding & Mull Handbook, Hodgdon's Reloading Data Manual, Hornady Handbook of Cartridge Reloading,* and *Ackley's Handbook For Shooters and Reloaders,* and the "how to" instruction manuals that come with reloading tools, usually give all the basic information needed for shotshell and cartridge reloading at home.

But as every experienced reloader knows, particular problems do come up occasionally, the answers to which cannot always be found in locally available reloading reference texts.

Fortunately, ready and free technical assistance is available from a number of national authorities.

Fred Huntington, maker of the RCBS line of reloading tools and dies at Oro, California, has helped many a reloader solve a technical problem, either by detailed letter advice, or by furnishing some specialized item of operational need.

The Lyman Gun Sight Company, Middlefield, Connecticut, which makes the well-known Lyman line of reloading tools, and Norma Precision, Inc., South Lansing, New York, representing Norma ammunition reloading components, both offer technical services without charge.

Ballistics engineers at the Remington, Winchester and Federal ammunition-making plants are ever ready to help with reloading problems. You do not have to be a user of their manufactured reloading components to get help.

The National Rifle Association's technical staff will answer puzzling reloading questions and help solve bench operation problems. This service, too, is free, but is restricted to NRA members.

There is no reason for you to be stumped by any obstacle to safe, efficient and enjoyable reloading of sporting ammunition.

When writing for assistance, take care to outline your problem clearly—and do send along a self-addressed, stamped envelope.

IN DECADES long gone by—and, in fact, in our own generation—it was a sad mistake to leave paper tube shotgun shells exposed to damp air, or rimfire cartridges to dampness—or worse, a combination of humidity and heat.

The paper tubes of shotshells that received only overnight exposure often swelled until normal chambering and firing were impossible. Similarly, many a .22 cartridge, long exposed to heat or dampness, would fail to fire.

Improvements in primers, powders, tube materials, wads, and crimping have greatly increased shotshell life and improved primer-powder ignition dependability.

Centerfire ammunition, never as much of a problem as shotgun shells and the .22 caliber rimfire cartridge, has also been improved and given longer useful life.

It will probably surprise some readers to learn there are some 212 different operations in the manufacture of a single shotgun shell.

After putting expensive materials, labor and time into the production of a consumable, literally *expendable* product, the manufacturer knows it is simply good business to make certain it reaches the purchaser in top condition.

A great deal of technical research has gone into making the modern shotshell reliable, whether stored properly or carelessly by dealer or sportsman-user.

Formerly, sporting ammunition was shipped to dealers in wood cases. These boxes tended to absorb moisture. Now, bulk packaging is in heavy

Remington
KLEANBORE
222 REMINGTON
Hi-Speed
20 CENTER FIRE SMOKELESS CARTRIDGES
R222
Remington
NON-CORROSIVE KLEANBORE PRIMING
Ammunition

cardboard cartons, impregnated with waterproofing and sealed against moisture. Inside, the individual boxes of ammunition have their own factory-provided protection. The result is much longer shelf life for ammunition.

Today, adverse storage or exposure conditions usually have to be either severe or prolonged before small arms ammunition performance is affected.

Even so, heat and moisture are still the insidious enemies of sporting ammunition.

Heat will deteriorate primer and powder and will cause some bullet lubricants to melt and slowly penetrate loads of metallic cartridge class. In shotshells heat can cause varying powder performance, even among shells from the same box.

Firing pressures may increase dangerously, too —but not always. The safety factor must always be considered, however, whether or not any real danger occurs.

When pressures do increase, there will surely be performance variation from shell to shell or cartridge to cartridge, although there may not be a dangerous increase in breech pressures.

Given reasonable care and proper storage, modern high power centerfire ammunition will likely last for years and give dependable performance when fired.

Not long ago I fired some black powder rifle ammunition that was loaded about the year 1880. Every round fired, and accuracy at 100 yards was very good.

But this ammunition, despite its age, had been given ideal storage through the decades following its manufacture. Another factor contributing to its long potent life was the absence of metal stress on the straight brass cases.

There is constant, silent cartridge case stress on our necked-down modern cartridges, like our big game .30-06 and .270 caliber cartridges and our high velocity varmint loads. Within twenty years or so of manufacture, some of these unfired, sharply necked-down cartridges tend to develop neck cracks. Others appear normal but similarly split at neck on firing.

Whether old or modern cartridges, eventual performance will be greatly affected by exposure to heat during inactive life.

Despite warnings printed on boxes and helpful trade tips from manufacturers, many retailers still follow the harmful practice of putting ammunition in display windows where the sun's light and heat strike it most of the day.

(Empty boxes or dummy shells and cartridges, obtainable from the ammunition manufacturer, would best serve for such displays.)

Some stores keep reserve ammunition stock in tightly closed, outside metal structures. This is inadvisable, too.

Although our new plastic tube shotshells stand up better under adverse storage conditions than the old paper type, still, they shouldn't be subjected to high or prolonged heat.

Preferably, *all* sporting ammunition should be kept in a cool, dry place, remote from both moisture and heat infiltration.

Unfortunately, there are not many such storage places in the average Florida home, and those that exist usually have some sort of family priority use attached. The sportsman in the family usually must use back porch closet or garage for sports equipment storage.

While closets and garages may be satisfactorily dry, most are poorly ventilated and far from cool. When closed, it is not unusual for summer temperatures in Florida home closets and garages to average 90 degrees Fahrenheit or higher—which is considerably more than the 60-70 degree range considered ideal for ammo storage.

In a home closet, humidity is apt to change radically, too, depending on tie-in with home air conditioning. One thing sure, the humidity won't be *constant*, as it should be, if air conditioning in the home is on and off intermittently.

It is always a good idea to hunt or shoot competitively with fresh ammunition, not an odd assortment of bullet weights and styles or accumulated shotshell leftovers of uncertain past storage life.

What with constantly rising consumer cost (due largely to inflationary prices of brass used in manufacture), and the growing red tape of acquisition, our unused sporting ammunition is like money in the bank. It pays to take care of it by storing it properly. ●

CONSERVATION SCENE

Chesapeake Waterfowl Cholera

THE FIRST documented outbreak of waterfowl cholera on the Chesapeake Bay has claimed the lives of a number of wintering sea ducks—mainly old squaw, according to area bacteriologists. The deaths of two whistling swans, two black ducks, and some buffleheads have also been attributed to the disease, reports the National Wildlife Federation.

Waterfowl cholera was first documented on the Atlantic Flyway in 1963 off the coast of Maine, according to Dr. Louis Locke, bacteriologist with the Bureau of Sport Fisheries and Wildlife's Patuxent Wildlife Research Center in Laurel, Maryland.

The disease popped up more recently in the Everglades, 1967-68, where the victims included two to three thousand coots and 100 to 200 scaup. These figures, unfortunate as they may be, are slight in comparison to West Coast casualties.

The California Department of Fish and Game considers a disease loss of two to three thousand swans per year a mixed blessing. Though none of the officials there approve of this many dead waterfowl floating about, thoughts of big epidemic fowl cholera years such as 1947-48 recall casualties as high as 8,000 waterfowl in just one game management area. Records of the deadly affliction, begun by California and Texas as early as 1944, indicate the awesome speed with which fowl cholera can spread from its point of inception.

Since the disease is a relative newcomer to the Atlantic Flyway, lack of documentation makes general commentary highly disputable. What is needed, says Dr. Locke, is (1) immediate diagnosis of diseased birds and (2) close observation of other waterfowl in the area. In short, until an intense, coordinated bacteriological study of cholera is conducted on the Atlantic Flyway, luck will continue to play a large role in the fate of flyway waterfowl. In the words of a spokesman for Maryland's Department of Game and Inland Fish, "We're cautiously optimistic."

Waterfowl cholera is at best unpredictable — sometimes restricting itself to the infestation of one species, another time affecting the entire gamut of wildfowl. To date the Chesapeake Bay incident has not threatened the area's huge population of wintering Canada geese, representing more than two-thirds of the entire Atlantic Flyway population of honkers. If good fortune holds, the big birds will soon begin their northward flight, leaving the wintering grounds—and the cholera—behind.

Spanish Moss on the Wane?

THE SPANISH moss of the southern states, beloved by some and excoriated by others, appears to be dying in some areas, the Wildlife Management Institute reports. The reason for the unexpected Spanish moss malaise is puzzling to southern scientists who have found oak trees becoming bare in some areas, and it may cause minor worries for ecologists who happen to give any thought to the problem, since birds, particularly the parula warbler, feed on mites and other insects that live in the moss. Squirrels and some birds use the moss in nest building.

Moss mortality appears to be the greatest in Florida, although it also apparently is on the wane in parts of Georgia and Mississippi. Everything from air pollution to chemical sprays and fluorides are being blamed, but no cause has been pinpointed.

Water Control Challenge

MONITORING and instantaneous control of the water supply in cities and suburbs will become one of Florida's major challenges through the 70's as the state's population swells and the demand-supply ratio becomes tighter.

An answer to the growing problem for municipal and large privately owned facilities, an electronics expert suggests, is the use of microwave radio systems to do the job of trouble shooting.

"It's now being done in Philadelphia," points out Aubrey B. Hutchison, Jr., president of Microcom, Inc., Miami. "In the City of Brotherly Love, much of the 3,600 miles of water pipelines are so old that breaks kept occurring which caused erosion of the soil beneath the streets.

"This subsurface activity resulted in holes suddenly appearing in the pavement, and at one time a Volkswagen plunged into and was swallowed up in the gaping abyss."

Several years ago, the city installed a remote supervisory control system at the Lardner's Point Pumping Station, which has a capacity in excess of 210 million gallons daily and is one of the principal links in Philadelphia's water network.

Through a microwave radio communications network—Hutchison was one of the key individuals who handled the assembly and installation of the console or "heart" of the system—all data such as pressures and flow rates measured at many points are transmitted to the central location for continual surveillance.

"By detecting and pinpointing line breaks instantly," Hutchison says, "water losses may be stopped at once for important savings in a vital natural resource."

Undersea Living Research

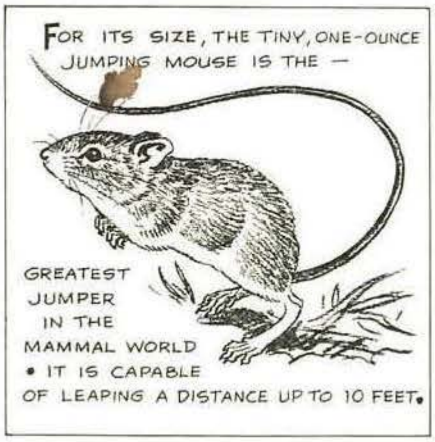
FOUR aquanaut-scientists of the University of Miami Rosenstiel School of Marine and Atmospheric Sciences were chosen for the first team of Tektite II, an undersea living and research experiment in the Virgin Islands.

During April 1970, for two weeks, graduate students Richard W. Curry and Roger J. Dexter lived in a four-room habitat at a depth of 50 feet and conducted an intensive study of the chemistry of the seawater. Associate Professor, Dr. Paul D. Cratin directed the chemical oceanography program from the surface and, with W. T. Mount, the School's Diving Officer, alternated with the habitat team in the round-the-clock collection of seawater samples. Chemical analyses were done both in the habitat and at the College of the Virgin Islands, St. John.

The team of chemists hope to determine whether there was a change in the chemistry of water samples as they surfaced from 50 feet, where the pressure is 2½ times greater than at sea level. It is speculated, for example that some of the dissolved oxygen in seawater is lost through degassing as samples are exposed to changes in pressure. Biologists will benefit from this work because accurate measurements of dissolved oxygen and other chemical parameters are important to an understanding of the behavior of sea animals in clean as well as polluted environments.

The scientists continously monitored seawater temperature which provides useful information for internal wave studies, and measured the visibility in the area as part of an optical oceanographic experiment. This basic environmental information will be extremely important in planning future undersea living and research experiments.

Nature Notes


FOR ITS SIZE, THE TINY, ONE-OUNCE JUMPING MOUSE IS THE —
GREATEST JUMPER IN THE MAMMAL WORLD
• IT IS CAPABLE OF LEAPING A DISTANCE UP TO 10 FEET.

The Tektite II research program by Mr. Curry and Mr. Dexter was a special topics graduate course offered for the first time by the University of Miami Rosenstiel School, where they are both working toward their Master of Science degree in Chemical Oceanography.

Dr. Alan Beardsley and Mr. William High of the Bureau of Commercial Fisheries (Seattle) and an engineer from the General Electric Company also lived in the habitat. The aquanaut-scientists used a new rebreathing system developed by GE which allowed them to spend up to eight hours working outside the habitat. To afford maximum safety, they were observed at all times by closed circuit television from the surface. At the end of the two-week period, the five habitat scientists spent 19 hours in a recompression chamber.

The U.S. Department of Interior, lead agency of Tektite II, received an unexpectedly large number of proposals from various organizations to participate in the program. The University of Miami program made it possible to conduct extensive chemistry experiments not carried out in previous undersea living projects.

Participants in Tektite II included the U.S. Department of Interior, NASA, U.S. Navy, National Science Foundation, Smithsonian Institution, Government of the Virgin Islands, Health Education and Welfare Department, Commerce Department, various universities, and General Electric Company.

DU International Extended

DUCKS UNLIMITED, North America's pioneering private waterfowl conservation organization, is launching an unusual and dynamic new international program for the benefit of the continent's waterfowl resources. The formation of Ducks Unlimited of Mexico was announced recently by the president of Ducks Unlimited, Inc., William P. Elser, of San Diego.

The new conservation group is being established following March meetings in Mexico City; participating in these conferences were officers and the Executive Committee of Ducks Unlimited, Inc., interested Mexican sportsmen, and conservation officials of the government of Mexico. In his keynote address, Dr. Rodolpho Hernandez Corzo, Director General of Wildlife in Mexico, outlined the need for cooperative action in waterfowl conservation, and offered his full assistance and support.

According to Mr. Elser, who personally spearheaded the new international program, Ducks Unlimited of Mexico will be a completely independent membership organization, established under Mexican laws; he stressed that the group will raise all of its own conservation funds, which will be utilized for waterfowl projects entirely within Mexico.

Serving as President of Ducks Unlimited of Mexico will be Nick S. Covacevich, a well-known sportsman-conservationist and

(*Continued on next page*)

(Continued from preceding page) businessman of Mexico City. Other officers of the newly formed group are Vice Presidents Jorge De Heredia and E. Stuart Gildred, and Secretary Phillip Patton. Cooperating closely in the organization is the Club Can y Caza de Mexico, one of the nation's leading sportsmen's groups.

In commenting on the organization of Ducks Unlimited of Mexico, President Elser stated: "We are extremely happy to see the enthusiasm and vigor which our friends in Mexico have expressed. While about 80% of our continent's waterfowl are hatched in Canada, where Ducks Unlimited has built over 900 'duck factories', many millions of these same ducks and geese winter in Mexico. The forward-thinking men who formed Ducks Unlimited of Mexico are understandably concerned with the preservation of the wintering grounds and the wise conservation of waterfowl resources within their country. Dr. Corzo, Mexico's Director General of Wildlife, has given his wholehearted support, and in turn may expect close cooperation in his waterfowl conservation efforts. I feel that the launching of this new organization and its programs will mark an important milestone in the long history of waterfowl conservation on the North American continent."

House Refuses Timber Bill

INVOKING a rarely used procedure, the House of Representatives, by a vote of 228 to 150, refused to allow floor debate on a controversial bill that sought to accelerate logging on the national forests, according to the Wildlife Management Institute. By denying the proposal the privilege of the floor, House conservation leaders effectively killed any further consideration of it for the immediate future.

The plan, proposed by elements of the timber industry and endorsed by housing and construction groups, was rooted in the notion that accelerating cutting of national forest timber would generate larger receipts that could be reinvested mainly in reforestation and the growing of still more timber. This was held necessary to overcome a potential lumber shortage, but the timber industry was hard pressed to explain its rising export of U.S. timber.

Conservationists rejected the plan because its enactment would have given priority to the growing and cutting of national forest timber. The plan's supporters claimed no intent to harm watersheds, fish, wildlife, recreation, and other national forest values, but to persons familiar with the ways of Washington and federal agencies, there was no question but that the creation of a special fund for timber purposes, over the long term, would result in national forest program attention being given mainly to trees and logging.

Florida's New Driver License Renewal System

The system for issuing your Florida driver license is changing. Driver license renewal by mail begins July 1, 1970. You will not go to the court house or substation for renewal. The Department of Highway Safety and Motor Vehicles, Division of Driver Licenses, will MAIL a renewal notice to you prior to the first day of your renewal month.

To receive your driver license renewal notice, the Department must have your correct address. Should you fail to receive your renewal notice by the first of your renewal month, you must contact your nearest Florida Highway Patrol station or driver license office for assistance.

If you have moved since your last license renewal and have not notified the Department of the change, promptly complete the form attached and mail to: THE DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES, DRIVER LICENSE DIVISION, KIRKMAN BUILDING, TALLAHASSEE, FLORIDA 32304.

CHANGE OF ADDRESS NOTICE

INSTRUCTIONS: Please print or type name as shown on your driver license. Print your new address below, listing your street, city and zip code. However, if you receive mail through a Post Office Box, General Delivery, or Rural Route, you may use that mailing address if you also list the location of your home. Examples: P. O. Box 13 (1 mi. E. on Magnolia Dr.); RFD 1, Box 34 (3 mi. W. Blountstown, on SR-20); General Delivery (Corner of Dade St. and Orange Avenue).

Name ______________________________
FIRST MIDDLE OR MAIDEN LAST

Date of Birth ______________________________
MONTH DAY YEAR

Driver License Number ______________________________

New Mailing Address ______________________________
HOUSE NUMBER & STREET

____

City ____________________ Zip __________

For that BIG ONE that didn't get away

ELIGIBILITY REQUIREMENTS
SPECIES

LARGEMOUTH BASS	8 pounds or larger
CHAIN PICKEREL	4 pounds or larger
BLUEGILL (BREAM)	1½ pounds or larger
SHELLCRACKER	2 pounds or larger
BLACK CRAPPIE	2 pounds or larger
RED BREAST	1 pound or larger

All fish must be taken from the fresh waters of the state of Florida, as defined by the Game and Fresh Water Fish Commission. Fish must be caught on conventional fishing tackle, with artificial or live bait, in the presence of at least one witness.

The catch must be weighed and recorded at a fishing camp or tackle store within the state by the owner, manager, or an authorized agent of the respective establishment.

FLORIDA WILDLIFE'S
FISHING CITATION

is available without charge, to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the fresh-water game fish of the prescribed species and size requirements. Citation, showing recorded date of the catch, will be mailed to the applicant upon receipt of the following application form that has been properly filled out and signed.

Only fishing citation applications received within 90 days from date of catch will be honored.

APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION

The Editor, FLORIDA WILDLIFE Date__________
Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Florida Wildlife Fishing Citation with the inscribed data listed below:

Name (please print)__________
Address __________
City__________ State__________ Zip No.__________
Species__________ Weight__________ Length__________
Type of Tackle__________
Bait or Lure Used__________
Where Caught__________ in__________ County
Date Caught__________ Catch Witnessed By__________
Registered, Weighed By__________ At__________
Signature of Applicant__________

CUT OUT AND SAVE THIS APPLICATION BLANK

White-tailed Fawn

Photo By Leonard Lee Rue III

4-144-69 10 4-70
JOSEPH P. BAENDT
512 E. LOWELL ST
LAKELAND, FLA. 33801

FLORIDA WILDLIFE Magazine
Game & Fresh Water Fish Commission
Tallahassee, Florida 32304

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Name ______________________

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